





## The Horse.

## BREEDING WHIMS AND FANCIES OF DRIVERS.

Equally with the jockey who steers the running horse, the drivers of the trotters are creatures of sentiment as to the merits or demerits of certain strains of trotting blood. It is not so much a question of actual pre-eminence in blood and breeding, but of more or less of the result of the actual contents on the race-track, and the close acquaintance with horses of kindred blood breeds a faith in and liking for trotters inhering in this blood. For instance, Hiram Woodruff, having before him the famous example of Lady Suffolk, declared his preference for animals in which the Moser blood predominated; he also admired Andrew Jackson and Long Island Black Hawk, and in his last years became a convert to the Hambletonian faith through the doings of Dexter, Dan Mace, ever mindful of Ethan Allen's flights of speed, purity of gait and intense desire to trot, once said, "in this positive style, I like a dash of Morgan blood," but in the direct given him by Lady Suffolk's secret trait of a mile in 2:10, in the presence and under the watches of John Dohy and William H. Saunders, who are living witnesses, was convinced that Mambrino Chief and thoroughbred blood were great help in giving a trotting power, a long stride with no waste action. He always had great respect for George M. Patchen, having personally proven his quality, and held that Hopeful's goodness largely came from his grand sire, "Dry" Tait. Lady Suffolk's secret trait of a mile in 2:10, in the presence and under the watches of John Dohy and William H. Saunders, who are living witnesses, was convinced that Mambrino Chief and thoroughbred blood were great help in giving a trotting power, a long stride with no waste action. He always had great respect for George M. Patchen, having personally proven his quality, and held that Hopeful's goodness largely came from his grand sire, "Dry" Tait.

When we consider that scarcely three years have elapsed since Evergreen Stock Farm was opened the showing for success is most auspicious, and although the stock of heavy horses is very large, it is quietly hidden by those who may know that the coming season will again take the proprietor across the water for a second importation, in which case, with his former experience, we may expect to see one of the finest shipments of heavy horses ever brought to Michigan.

## OF INTEREST TO IMPORTERS.

A subscriber writes: "I have bred three consecutive seasons to a registered Cleveland Bay horse, a good looking animal, with a fine pedigree, and have three colts of different colors. One has the color of the horse, another of my mare, and the other is a light chestnut, the mare is black. I was assured that every colt would be bay, and all alike. If I had picked up the first five dollar stallion passing my farm I am sure the colts would have been as good as and nearly alike. That's all the Cleveland Bay I want. I believe they are all of mongrels." If this had been the first complaint of this kind, we would not have felt like publishing it. But we have had others, as well as the personal statements of farmers to the same effect. It is evident some English breeders are meeting the demand for this style of horse by using outside blood. When a Cleveland Bay gets a chestnut colt from a black mare it is safe to say there is something wrong. We believe such horses should be sold under a guarantee that their produce would be as claimed or the horse to be taken back. Or if importers should take means to prevent mongrel-bred animals being foisted upon them, and hold the English breeder to a strict accountability. There are too many mongrels in this country now, and the idea of paying enormous prices for foreign ones is ridiculous. We call attention to this as a matter which menaces the business of importing horses by destroying confidence in their purity of blood and recorded pedigrees.

## Home Gossip.

It is said that James Murphy, of Chicago, has paid over \$20,000 for a bunch of County horses since the first of January.

EX-SENATOR FAIR, of Nevada, has purchased a California ranch and will engage in the business of breeding trotters.

The owners of Maud S., Sunol, Palo Alto, Susie S. and Gene Smith expect them to trot under 2:05 1/4 this season. We don't.

CHAWFORD, of Careyville, this State, has purchased a half interest in the brood trotting mare Pearl, by New York, and her colt by Barney 5110.

MR. E. WARNER, of Reedburg, Ill., has sold to the Illinois State Fair, his imported Percheron stallion Bayard, a noted show horse.

JOHN GRANT, of this city, has purchased from Miss Alice A. Barker, of Leslie, Ingham Co., the two-year-old colt Harry Backus, by J. W. Bailey 3157.

THE NATIONAL Trotting Association will, at the end of the season, publish a book giving the official records of the year and the breeding of the horses making them.

N. P. CLARK's stock barn at Brookway, near St. Clair, Minn., burned last week, and 12 imported breeding mares perished. They were valued at \$25,000. The barn cost \$3,500.

MR. W. FISK, of Coldwater, has sold to Mr. A. Campbell, of Manchester, a two-year-old stallion by Masterdell, dam Allie Wilkes, by Yung King, he by George Wilkes. Reported price, \$1,000.

THE race horse Troquois, the only American bred horse which ever won the English Derby, was sold at Nashville, Tenn., last week for \$34,000. His grand dam was owned in Detroit for a long time.

R. A. BROWN, of Sand Beach, this State, has sold to R. C. Bradley, of Port Hope, the four-year-old red mare Fly Pamplin, by Parson, 2:34 1/2, dam M. M. by Hickory, a son of Royal George.

Two combinations of sales of horses at Lansing closed on Wednesday. Up to 2 p. m. that day 25 head had been sold at an average of \$108.75, including colts, grados, driving horses, etc. We will give the list of animals and purchasers in next issue.

ONE of our State exchanges mentions a bay filly two years old, called Daisy, sired by King Herod, a grand-son of Ethan Allen. King Herod was sired by Sir Charles, or "Old Charley," owned at Leslie, Ingham Co., but was not a son of Ethan Allen. That point was settled 15 years ago.

Ten entries to the \$3,000 Guaranteed Stake

Western Michigan. In size it is 41x130 feet with 31 feet posts, finished without regard to cost, thoroughly windowed, ventilated, and protected by a liberal application of paint. A wind engine furnishes power for a line shaft, to which is attached pumps, feed mills, etc.

A hall, ten feet wide, extends the entire length through the middle of the first floor, on either side of which are 18 completely finished box stalls, 14x18 feet each, besides a feed room and a well furnished office. The second floor is nearly all devoted to storing hay and straw, in which there is room for over 200 tons, the machinery for unloading and handling being of the most approved order. Besides this barn there are two others on the farm either of which would grace an ordinary farm, which together with his large, substantial and well appointed farm house, with its surroundings, deeply set with evergreens, at once suggest the appropriateness of the name "Evergreen Stock Farm."

This season Mr. Cross has made some important sales. First a splendid Percheron stallion to Messrs. Elenborough & Caldwell, near Benton Harbor, price not made public. Second, the French draft stallion, Gregoire 5785, (1307) to Maxm Bros., Marcellus, \$1,500. Third, the French Coach stallion Charley May 486, to Elenborough & Caldwell, \$2,000. Fourth, the Percheron stallion Spangone 5113, (1936) to George Edley of Shelby, \$1,800 and a beautiful pair of Magna Charta mated bay geldings, five years old, to Capt. Thomas Waters, of Ishpeming, \$500. He also has made several sales of grades at remunerative prices, his entire sales so far aggregating nearly \$8,000.

When we consider that scarcely three years have elapsed since Evergreen Stock Farm was opened the showing for success is most auspicious, and although the stock of heavy horses is very large, it is quietly hidden by those who may know that the coming season will again take the proprietor across the water for a second importation, in which case, with his former experience, we may expect to see one of the finest shipments of heavy horses ever brought to Michigan.

THE \$10,000 Merchants' and Manufacturers' Guarantee of Stakes, to be trotted for at the summer meeting of the Detroit Driving Club, July 25 to 28, closed with 19 subscribers, of which the following is a list: D. T. Foster, of Burlington, Ill.; James Stinson, Chicago, Ill.; C. D. Ellis, of Toombs, Mich.; D. D. Miller, Terre Haute, Ind.; R. L. & C. C. Cobb, Eaton Rapids, Mich.; Glenview Stock Farm, Louisville, Ky.; James R. Clay, Paris, Ky.; Hickory Grove Stock Farm, Racine, Wis.; G. W. Leiby & Son, Chicago, Ill.; Bud Doble, Chicago, Ill.; W. P. Jams, Terre Haute, Ind.; John Lohm, of Hamtramck, Mich.; Edgewood Stock Farm, Terre Haute, Ind.; George H. Hammond, Detroit, Mich.; James G. Gray, Boston, Mass.; James R. Lott, Philadelphia, Pa.; Bob Brown, Kansas City, Mo.; F. S. McGraw, Bay City, Mich.; Palo Alto Stock Farm, Menlo Park, Cal. The horses are to be named Monday, July 7th.

## The Farm.

## The Barley Crop.

For a number of years no one of the small grains has paid, in localities suited to its cultivation, better than barley. It has usually brought more per pound than any other grain, the large profit made by brewing and malting it going in part at least to growers of the grain. This could hardly be but for certain facts about the barley crop which largely restrict its production. It is commonly regarded as an uncertain crop, disagreeable to harvest, and except under favorable circumstances often worth no more than its feeding value, for which it ranks about equal with corn. There is also a common belief that only a comparatively limited area of the Northern States is adapted to barley growing. Of this we are not so sure. It is certain that failures to produce first quality barley occur in localities where it is generally a safe crop. Quite possibly, therefore, failures elsewhere are due to mistakes in sowing or harvesting. The best methods of growing the crop are therefore matters of general interest.

The new tariff bill proposed by the Ways and Means committee of Congress proposes a duty of thirty cents a bushel on Canadian barley. Whatever other changes may be made in this schedule, the increased duty on barley will probably stand, and by shutting out Canadian competition, it will insure for American farmers for several years a better market and higher prices for this crop than they have lately received. It is not likely, indeed, that this country will be able for a year or two at least to increase its barley product so as to supply the demand. Some suggestions based on practical experience as to the proper conditions for growing the best barley are therefore timely.

In the first place, this grain needs to be sown as early as possible in the spring. Late sowing grows a shriveled, shrunken barley often in localities best adapted to this crop. Sown on late-plowed land in place of spring wheat, it would probably succeed wherever the latter crop is a success. No crop germinates quicker than barley and none matures earlier. As it requires when making the grain a cool period, it does best to sow it very early, so as to mature the crop before excessive summer heats begin. It needs rich, dry soil, but not an excess of fresh manure. What is left over from a previous manuring for corn will place soil reasonably fertile in the best possible position for growing a barley crop.

If the soil be not very rich, barley may still be sown, provided the soil be dry and friable. On a corn or potato stubble, deep plowing for barley is not necessary, and, on the contrary, rather an injury. It takes too long, and it turns under too deeply the fine till prepared by freezing and thawing through the previous winter. What the barley crop mainly requires is mineral fertility, potash and phosphate. A dressing of these, drilled in with the seed, will almost insure a plump, heavy grain, while without the mineral a dressing of stable manure will only make a rank growth of straw with shriveled, shrunken grain. As a further security of plump grain, we have known a top dressing of salt, applied when the grain was just peering through the surface of the soil, to produce an excellent effect. Nothing is better to keep soil moist and cool than salt. It is also an excellent solvent of any mineral manures that are in the soil, provided they have, as both phosphate and potash often do, assumed an insoluble form.

The old-time objection to barley as an early crop to harvest has practically been done away with since the blinding harvester has been introduced. It is ugly work

threshing barley, but that job does not last long, and a granary filled with the plump grains of barley, and worth more per pound than wheat, will overcome this objection. We believe that for reasons stated above, barley will pay better this year than it has recently done, provided it is grown so as to be plump and sound. Oats are now over-produced and likely to be another season. Wherever a farmer has a specially dry and rich piece of ground that he was intending to sow with oats, let him sow at least a part of it with barley, applying mineral manure with the seed grain, and he need not regret the result.—American Cultivator.

## Food Value of Potatoes.

Henry Stewart, discussing the food value of potatoes as affected by soil, drainage, moisture and manures, says, in the *Rural New Yorker*: Potatoes vary considerably in quality according to the soil in which they are grown. The tubers grown upon gravelly or sandy soils contain more starch and less water than those grown on clay soil which is apt to be wetter and colder. A peaty soil, that is, a swamp after it has been drained, produces the very best kind of potatoes—dry, mealy, and containing a maximum yield of starch, which is 18 to 25 per cent. Wet soil produces "soggy" potatoes containing sometimes as low as nine to 11 per cent of starch, and consequently possessing only half the feeding value of the best kind. The more starch in the potatoes the more mealy they cook. The starch in the potato exists in granules of a shape much like that of a clam shell with concentric lines upon it; and these are crowded together in the cells which are irregularly hexagonal in form and contain fluid, or s.p., in which the granules float; when the potato is of good quality the starch granules fill the cells, but otherwise they appear quite loosely in the watery fluid. When a potato is subjected to heat the starch granules burst, just as popcorn does, but form a dry fine meal, which in the best potatoes scarcely holds together, because they rupture the cell walls by their expansion; and when broken up with a fork it makes a very light fluffy mass. In inferior potatoes there is too much water and too little starch to make this dry meal, but instead of it there is a soft, sticky, pulpy mass which has a poor flavor, due to the crude undigested matter in the sap. This difference is due to the soil, or rather to the excess of water in the soil.

Again the quality of potatoes is affected by the kind of plant food used for the crop. Manure, especially when it is fresh, requires a large quantity of water to dissolve the nutriment required by the plants, and this water makes a weak sap, which tends to form in the tuber a few starch cells floating in a large quantity of sap, making water potatoes deficient in starch, unless the season should be dry, when the potatoes will be of better quality, but inferior in yield because of the deficiency of nutriment for the crop on account of the small supply of water and the insoluble character of the manure. But fertilizers and well decomposed manures are extremely soluble, and a minimum quantity of water is able to dissolve all the nutriment required by the plants, and this water makes a weak sap, which tends to form in the tuber a few starch cells floating in a large quantity of sap, making water potatoes deficient in starch, unless the season should be dry, when the potatoes will be of better quality, but inferior in yield because of the deficiency of nutriment for the crop on account of the small supply of water and the insoluble character of the manure.

But fertilizers and well decomposed manures are extremely soluble, and a minimum quantity of water is able to dissolve all the nutriment required by the plants, and this water makes a weak sap, which tends to form in the tuber a few starch cells floating in a large quantity of sap, making water potatoes deficient in starch, unless the season should be dry, when the potatoes will be of better quality, but inferior in yield because of the deficiency of nutriment for the crop on account of the small supply of water and the insoluble character of the manure.

But fertilizers and well decomposed manures are extremely soluble, and a minimum quantity of water is able to dissolve all the nutriment required by the plants, and this water makes a weak sap, which tends to form in the tuber a few starch cells floating in a large quantity of sap, making water potatoes deficient in starch, unless the season should be dry, when the potatoes will be of better quality, but inferior in yield because of the deficiency of nutriment for the crop on account of the small supply of water and the insoluble character of the manure.

But fertilizers and well decomposed manures are extremely soluble, and a minimum quantity of water is able to dissolve all the nutriment required by the plants, and this water makes a weak sap, which tends to form in the tuber a few starch cells floating in a large quantity of sap, making water potatoes deficient in starch, unless the season should be dry, when the potatoes will be of better quality, but inferior in yield because of the deficiency of nutriment for the crop on account of the small supply of water and the insoluble character of the manure.

But fertilizers and well decomposed manures are extremely soluble, and a minimum quantity of water is able to dissolve all the nutriment required by the plants, and this water makes a weak sap, which tends to form in the tuber a few starch cells floating in a large quantity of sap, making water potatoes deficient in starch, unless the season should be dry, when the potatoes will be of better quality, but inferior in yield because of the deficiency of nutriment for the crop on account of the small supply of water and the insoluble character of the manure.

But fertilizers and well decomposed manures are extremely soluble, and a minimum quantity of water is able to dissolve all the nutriment required by the plants, and this water makes a weak sap, which tends to form in the tuber a few starch cells floating in a large quantity of sap, making water potatoes deficient in starch, unless the season should be dry, when the potatoes will be of better quality, but inferior in yield because of the deficiency of nutriment for the crop on account of the small supply of water and the insoluble character of the manure.

But fertilizers and well decomposed manures are extremely soluble, and a minimum quantity of water is able to dissolve all the nutriment required by the plants, and this water makes a weak sap, which tends to form in the tuber a few starch cells floating in a large quantity of sap, making water potatoes deficient in starch, unless the season should be dry, when the potatoes will be of better quality, but inferior in yield because of the deficiency of nutriment for the crop on account of the small supply of water and the insoluble character of the manure.

But fertilizers and well decomposed manures are extremely soluble, and a minimum quantity of water is able to dissolve all the nutriment required by the plants, and this water makes a weak sap, which tends to form in the tuber a few starch cells floating in a large quantity of sap, making water potatoes deficient in starch, unless the season should be dry, when the potatoes will be of better quality, but inferior in yield because of the deficiency of nutriment for the crop on account of the small supply of water and the insoluble character of the manure.

But fertilizers and well decomposed manures are extremely soluble, and a minimum quantity of water is able to dissolve all the nutriment required by the plants, and this water makes a weak sap, which tends to form in the tuber a few starch cells floating in a large quantity of sap, making water potatoes deficient in starch, unless the season should be dry, when the potatoes will be of better quality, but inferior in yield because of the deficiency of nutriment for the crop on account of the small supply of water and the insoluble character of the manure.

But fertilizers and well decomposed manures are extremely soluble, and a minimum quantity of water is able to dissolve all the nutriment required by the plants, and this water makes a weak sap, which tends to form in the tuber a few starch cells floating in a large quantity of sap, making water potatoes deficient in starch, unless the season should be dry, when the potatoes will be of better quality, but inferior in yield because of the deficiency of nutriment for the crop on account of the small supply of water and the insoluble character of the manure.

But fertilizers and well decomposed manures are extremely soluble, and a minimum quantity of water is able to dissolve all the nutriment required by the plants, and this water makes a weak sap, which tends to form in the tuber a few starch cells floating in a large quantity of sap, making water potatoes deficient in starch, unless the season should be dry, when the potatoes will be of better quality, but inferior in yield because of the deficiency of nutriment for the crop on account of the small supply of water and the insoluble character of the manure.

But fertilizers and well decomposed manures are extremely soluble, and a minimum quantity of water is able to dissolve all the nutriment required by the plants, and this water makes a weak sap, which tends to form in the tuber a few starch cells floating in a large quantity of sap, making water potatoes deficient in starch, unless the season should be dry, when the potatoes will be of better quality, but inferior in yield because of the deficiency of nutriment for the crop on account of the small supply of water and the insoluble character of the manure.

But fertilizers and well decomposed manures are extremely soluble, and a minimum quantity of water is able to dissolve all the nutriment required by the plants, and this water makes a weak sap, which tends to form in the tuber a few starch cells floating in a large quantity of sap, making water potatoes deficient in starch, unless the season should be dry, when the potatoes will be of better quality, but inferior in yield because of the deficiency of nutriment for the crop on account of the small supply of water and the insoluble character of the manure.

But fertilizers and well decomposed manures are extremely soluble, and a minimum quantity of water is able to dissolve all the nutriment required by the plants, and this water makes a weak sap, which tends to form in the tuber a few starch cells floating in a large quantity of sap, making water potatoes deficient in starch, unless the season should be dry, when the potatoes will be of better quality, but inferior in yield because of the deficiency of nutriment for the crop on account of the small supply of water and the insoluble character of the manure.

But fertilizers and well decomposed manures are extremely soluble, and a minimum quantity of water is able to dissolve all the nutriment required by the plants, and this water makes a weak sap, which tends to form in the tuber a few starch cells floating in a large quantity of sap, making water potatoes deficient in starch, unless the season should be dry, when the potatoes will be of better quality, but inferior in yield because of the deficiency of nutriment for the crop on account of the small supply of water and the insoluble character of the manure.

But fertilizers and well decomposed manures are extremely soluble, and a minimum quantity of water is able to dissolve all the nutriment required by the plants, and this water makes a weak sap, which tends to form in the tuber a few starch cells floating in a large quantity of sap, making water potatoes deficient in starch, unless the season should be dry, when the potatoes will be of better quality, but inferior in yield because of the deficiency of nutriment for the crop on account of the small supply of water and the insoluble character of the manure.

But fertilizers and well decomposed manures are extremely soluble, and a minimum quantity of water is able to dissolve all the nutriment required by the plants, and this water makes a weak sap, which tends to form in the tuber a few starch cells floating in a large quantity of sap, making water potatoes deficient in starch, unless the season should be dry, when the potatoes will be of better quality, but inferior in yield because of the deficiency of nutriment for the crop on account of the small supply of water and the insoluble character of the manure.

But fertilizers and well decomposed manures are extremely soluble, and a minimum quantity of water is able to dissolve all the nutriment required by the plants, and this water makes a weak sap, which tends to form in the tuber a few starch cells floating in a large quantity of sap, making water potatoes deficient in starch, unless the season should be dry, when the potatoes will be of better quality, but inferior in yield because of the deficiency of nutriment for the crop on account of the small supply of water and the insoluble character of the manure.

But fertilizers and well decomposed manures are extremely soluble, and a minimum quantity of water is able to dissolve all the nutriment required by the plants, and this water makes a weak sap, which tends to form in the tuber a few starch cells floating in a large quantity of sap, making water potatoes deficient in starch, unless the season should be dry, when the potatoes will be of better quality, but inferior in yield because of the deficiency of nutriment for the crop on account of the small supply of water and the insoluble character of the manure.

But fertilizers and well decomposed manures are extremely soluble, and a minimum quantity of water is able to dissolve all the nutriment required by the plants, and this water makes a weak sap, which tends to form in the tuber a few starch cells floating in a large quantity of sap, making water potatoes deficient in starch, unless the season should be dry, when the potatoes will be of better quality, but inferior in yield because of the deficiency of nutriment for the crop on account of the small supply of water and the insoluble character of the manure.

But fertilizers and well decomposed manures are extremely soluble, and a minimum quantity of water is able to dissolve all the nutriment required by the plants, and this water makes a weak sap, which tends to form in the tuber a few starch cells floating in a large quantity of sap, making water potatoes deficient in starch, unless the season should be dry, when the potatoes will be of better quality, but inferior in yield because of the deficiency of nutriment for the crop on account of the small supply of water and the insoluble character of the manure.

But fertilizers and well decomposed manures are extremely soluble, and a minimum quantity of water is able to dissolve all the nutriment required by the plants, and this water makes a weak sap, which tends to form in the tuber a few starch cells floating in a large quantity of sap, making water potatoes deficient in starch, unless the season should be dry, when the potatoes will be of better quality, but inferior in yield because of the deficiency of nutriment for the crop on account of the small supply of water and the insoluble character of the manure.

## Agricultural Items.

Some of the members of the Elmira Farmers' Club still plant their potatoes in the moon!

On the 14th of April, there were 21,876 head of cattle in the Chicago market. All were sold except 2,001 head.

About 1,250,000 persons are more or less interested in drying in New York. The annual output of dairy products exceeds \$60,000,000.

The Orange Judd Farmer says barley should never follow other white grains nor succeed itself unless upon very rich soil. A dressing of salt, also washed to the acre, is recommended for this crop.

R. G. BECKER, of Tipton County, Ind., told the institute held in his neighborhood that he had raised Mediterranean wheat for 15 years and it had not "run out." He had taken pains with its selection and cleaning, however. He raised 24 bushels per acre last year, and the cost of raising was 46 cents per bushel and was sold for 75 cents.

P. T. BARNUM said that the American people liked to be humbugged; if that is so there is no class of the American people that like to be humbugged so well as the farmers. If their neighbor has a good variety of seed for sale, that they know is good, they will not buy of him at a reasonable price but will send to some stranger and pay an exorbitant price many times for an inferior article.

J. F. HICKMAN, of the Ohio Experiment Station, considers clover and barts two of the greatest milk-producing foods that grow. He says, however, that in feeding ensilage the amount per day for a dairy cow should not exceed five pounds for each hundred pounds of live weight, and in feeding sugar beets or mangel wurtzels more than five pounds of live weight may prove dangerous to her constitution.

POTATOES grown in a muck or wet soil, that has not been drained, are usually of poor quality. Potatoes grown on sand or well-drained light soil, when cooked, generally "mealy," probably because they contain less water and less nitrogenous matter, while the porous soil permits of a better circulation of air and consequently a more highly organized development of starch, which is all-sufficient to the production of "mealy" potatoes.

BARLEY delights in a strong, rich soil; any land that will produce 25 to 30 bushels of wheat per acre is quite suitable for barley. Being less affected by climatic conditions and nearly free from the attacks of the insect pests that infest grain growing districts, it is rapidly taking the place of wheat and oats in many sections. In Western New York it is largely grown after corn and potatoes, though some is sown on land that has been fall-plowed.—Rural New Yorker.

MR. ROSE, who obtained 1,000 bushels of potatoes from one acre of land, managed by planting early, to get his crop so well along that he could plant again between the rows, and by digging the first crop before it interfered with the second, he reaped two crops from the same ground. He virtually planted two acres and got the last-planted acre on to the first. He used 1,500 pounds of fertilizer (commercial) and for a number of years previous the acre planted to potatoes had received forty wagon loads of manure, annually.

THE cat, says a practical farmer, is at first a surface feeder. The seed should not be covered too deeply. He recommends drilling each way a bushel and a peck of seed, or 2 1/2 bushels to the acre, with the drill set shallow. A good manure for the cat crop must contain plenty of potash and phosphoric acid; he therefore uses 55 pounds of nitrate of potash and 77 pounds of bone black, using it at the rate of 100 pounds to an acre. Under some conditions—depending upon the amount of nitrogen in the soil, in the form of ammonia—it might be necessary to use a complete fertilizer.

ROCHESTER, N. Y., Jan. 31, 1889.

F. R. C. MEDICINE CO.: As I have used your Remedy and am convinced that it is the only cure, I feel it my duty to make this statement for the benefit of those suffering with female trouble. I have used your F. R. C. Remedy, and it gave satisfactory results. I recommend it to all suffering from S. MRS. M. B. FRENCH. 21 Spring St.

## The Poultry Yard.

SOFT food for hens has a tendency to make fat. It is too easily digested, not too much of it should be fed. Remember hens like variety in their diet.

A CORRESPONDENT of the *Kenosha Farmer* says rumpy stock is no good for breeding. It is best to kill the badly affected fowls without delay. The policy of prevention is the wisest and wisest. The whitewash brush, the kerosene can and the oil broom are wanted in the henhouse about now.

G. W. FARLEY, who has had twenty-five years' experience in raising poultry and eggs for a city market, says in flocks of 150, White Leghorn fowls will average 125 eggs per annum. The accounts of 200 to 250 eggs per hen he regards as "fish stories."

THE Wyandottes are considered to lead the breeds as broilers, because they make a fine plump broast from the start. The Leghorn is also a good broiler breed. Plymouth Rocks have too long a breast bone for early broilers, but later this is in their favor.

A WRITER in the *Poultry Journal* says: Many prominent breeders are condemning hard boiled eggs as food for young chicks. I have tried everything that these same breeders have suggested, but have always gone back to the egg again, although it is an expensive food for early chicks unless you can get a sufficient number of infertile eggs out of each hatch.

WIKEN fowls have a variety of food they derive all the line they desire from the food. Some keep oyster shells, pounded, before their fowls, but it is not conclusive that any benefit is derived therefrom except as grit. However, lime is cheap, and so are shells, and as no harm is done, can result, the best mode of supplying lime, if any prefer to give it separated from the food, is in the shape of oyster shells or ordinary sea shells from the beach, which are sold by parties by the barrel, for that purpose.

A CANADIAN poultry-grower cautions against the excessive use of clover which is so strongly recommended as a food for fowls. He says it promotes binding of the crop. Another Dominion man reports the case of a fine bird whose crop was found packed with straw and clover in a state of fermentation. Clover is a valuable food, but must not be fed too often or too freely. The blossoms and leaves, soaked in boiling water, and thickened with meal, make the best way to use it.

THERE is a great demand for capons in Boston. The supply comes principally from New Jersey, where the business is largely conducted. The western product goes to New York and is not as fine and even in quality as the New Jersey. The genuine caponized fowls are most readily distinguished by the appearance of the combs. Usually the caponizing is performed at six to eight weeks old, and from that time out, if the operation has been a successful one, the comb becomes stunted and shriveled and loses all color. Rost assured if a bird is offered you for a capon that has a large grown comb or one that has been at all mutilated, the dealer is an impostor in ninety-nine cases out of a hundred. In the matter of caponizing, New Jersey men are the more dexterous, and perhaps in performing the operation they will not lose three birds in a hundred. Out West though, and in other parts of the country where they have not got the business down to a science, the mortality is as high as twenty-five per cent. In some cases.

## When The Hair

Shows signs of falling, begin at once the use of Ayer's Hair Vigor. This preparation strengthens the scalp, promotes the growth of new hair, restores the natural color to gray and faded hair, and renders it soft, pliant, and glossy.

"We have no hesitation in pronouncing Ayer's Hair Vigor unequalled for dressing the hair, and we do this after long experience in its use. This preparation preserves the hair, cures dandruff and all diseases of the scalp, makes rough and brittle hair soft and pliant, and prevents baldness. While it is not a dye, those who have used the Vigor say it will stimulate the roots and color, glands of faded, gray, light, and red hair, changing the color to brown or black."

## A Rich Brown

or even black. It will not soil the pillow-case nor a pocket-handkerchief, and is always agreeable. All the dirty, grubby hair preparations should be displaced at once by Ayer's Hair Vigor, and thousands who go around with heads looking like the 'trotter' perspire should hurry to the nearest drug store and purchase a bottle of the Vigor.—The Sunny South, Atlanta, Ga.

"Ayer's Hair Vigor is excellent for the hair. It stimulates the growth, cures dandruff, restores the natural color, cleanses the scalp, prevents dandruff, and is a good dressing. We know that Ayer's Hair Vigor differs from most hair tonics and similar preparations, in being perfectly harmless."—From *Economical Housekeeping*, by Eliza R. Parker.

## Ayer's Hair Vigor

PREPARED BY DR. J. C. AYER & CO., Lowell, Mass. Sold by Druggists and Perfumers.

As a Flesh Producer there can be no question but that

SCOTT'S EMULSION  
Of Pure Cod Liver Oil and Hypophosphites  
Of Lime and Soda  
is without a rival. Many have gained a pound a day by the use of it. It cures

CONSUMPTION,  
SCROFULA, BRONCHITIS, COUGHS AND COLDS, AND ALL FORMS OF WASTING DISEASES. AS A REMEDY FOR THE LUNGS, IT IS UNRIVALLED. It is sure to get the genuine on these poor imitations.

## Liberal Returns.

On April 18th we returned to our agents out of Pennsylvania and Ohio 12 per cent. of all the money they sent us for the past year in subscriptions to *The National Stockman and Farmer* and for the past year in subscriptions to the same terms. Send for particulars and sample copy (25 pages each) write to A. T. RICE & CO., Pittsburgh, Pa.

For a DISORDERED LIVER Try BEECHAM'S PILLS. 25cts. a Box. OF ALL DRUGGISTS.

WHICH? BUTTER OR CHEESE. If either, or both, send for J. S. CARTER'S Illustrated Catalogue, which contains full information of latest and best methods and appliances for making Cheese or Butter from the largest factory to the smallest dairy. J. S. CARTER'S Cream Gathering System of Butter Making is a Success. JOHN S. CARTER, Syracuse, N. Y.

USE CHAMPION FOOD FOR HORSES, COWS, HOGS, SHEEP & POULTRY. Horses now kept in better condition. Cows give more and richer milk. Sheep fatten from foot rot, ticks and vermin. Hogs kept from cholera. Poultry kept free from disease. It gives appetite and strength. Write for circulars, prices, and agency.

JAS. A. HINCHMAN, WHOLESALE AGENT, 47 State St., DETROIT, Mich.

SALESMAN WANTED. A few good wholesalers and retail dealers wanted by a



WATER!  
MACHINES,  
PUMPS, ETC.,  
all kinds of work  
done. Send for  
catalogue and price  
list. Price List  
Machine Co.  
CINCINNATI, OHIO.

TO CONSUMERS  
We are a specialty  
in all kinds of  
fruit and vegetable  
canning. Send for  
catalogue and price  
list. Price List  
Machine Co.  
CINCINNATI, OHIO.

TO CONSUMERS  
We are a specialty  
in all kinds of  
fruit and vegetable  
canning. Send for  
catalogue and price  
list. Price List  
Machine Co.  
CINCINNATI, OHIO.

TO CONSUMERS  
We are a specialty  
in all kinds of  
fruit and vegetable  
canning. Send for  
catalogue and price  
list. Price List  
Machine Co.  
CINCINNATI, OHIO.

TO CONSUMERS  
We are a specialty  
in all kinds of  
fruit and vegetable  
canning. Send for  
catalogue and price  
list. Price List  
Machine Co.  
CINCINNATI, OHIO.

TO CONSUMERS  
We are a specialty  
in all kinds of  
fruit and vegetable  
canning. Send for  
catalogue and price  
list. Price List  
Machine Co.  
CINCINNATI, OHIO.

TO CONSUMERS  
We are a specialty  
in all kinds of  
fruit and vegetable  
canning. Send for  
catalogue and price  
list. Price List  
Machine Co.  
CINCINNATI, OHIO.

TO CONSUMERS  
We are a specialty  
in all kinds of  
fruit and vegetable  
canning. Send for  
catalogue and price  
list. Price List  
Machine Co.  
CINCINNATI, OHIO.

TO CONSUMERS  
We are a specialty  
in all kinds of  
fruit and vegetable  
canning. Send for  
catalogue and price  
list. Price List  
Machine Co.  
CINCINNATI, OHIO.

May 3, 1890.

THE MICHIGAN FARMER.

3

## Horticultural.

## TRIMMING PEACH TREES.

To the Editor of the Michigan Farmer.

When such advice about leaving "a stump two or three inches long" in trimming peach trees, as J. J. Marshall is reported to have given at the late meeting of the Washtenaw County Pomological Society is published, it seems high time some one should arise and protest against such a ruinous practice. Mr. Marshall says this stump "does not rot as in other trees, but becomes hard like a horn." Yes, verily, such stumps will become "hard like horn," in most if not all fruit trees, and just here is where the mischief comes in. These dry stumps are constantly sucking the life blood from the living part of the tree, just as a mortified finger or a gangrened toe will soon involve in ruin the healthy hand or foot. Then what an unsightly aspect would a tree present with a multitude of dry dead stumps two or three inches long? No limb of any fruit tree should be cut off close to the body unless they grow each other, but instead, two or three buds should be left to produce fruit low down; and when a limb is cut off, it should be done close to a bud or put outside of the collar or ridge which can be seen on every limb, and which is the place nature designs limbs should be cut off. Limbs cut off at these places indicated will soon heal over, and no unsightly "dead stump two or three inches long" will be left to drain the living members of their vitality. If the limb of any fruit tree be cut inside of this ridge or collar, and the tree, a large decayed hole will result. The practice so common of leaving a stub even half an inch long beyond the point indicated where limbs should be severed, cannot be too severely censured, the vitality of thousands of trees being thus annually exhausted.

M. C. TIBBITS.

When and How to Set Out Plants.

J. M. Smith, in the *Rural New Yorker*, gives the methods of setting plants practiced on his famous fruit farm at Green Bay, Wis.

There are few things in either the market or the home garden, that are of more importance than setting out plants. If the soil is a heavy clay, I know of nothing better in the way of soil than a good sandy loam.

My own soil is a light sandy loam, and of course never bakes or becomes hard. Hence we seldom use any tools in setting plants.

If the soil seems a little heavy for the settler to open it easily with his hands, as it sometimes does, we send a man ahead with one of the common four-pronged potato-diggers; the ground having been previously prepared and marked, he strikes the prongs of the digger into the soil and loosens it, until the settler has no difficulty in running his hand down five or six inches deep into the nice, mellow earth.

What shall we do about the weather? If I could have all things as I wanted, I would prefer somewhat damp and cloudy weather, rather than cold, but I would never set plants in a heavy rain.

But as we cannot have all things in this world as we would like, we have learned to set our plants with splendid success at any time when we are ready, with but very little regard to the weather, except that we never set tender ones, like tomatoes, peppers, cucumbers, etc., when there is danger of frost.

In preparing the soil, it is made about as mellow as bed of ashes. The compost heap is the main reliance for fertilizers. Its contents are generally put on the ground after plowing, and harrowed in.

In setting plants people make two mistakes that in hundreds and thousands of cases are fatal to the final success of the crop. One of them is neglecting to press the earth sufficiently close around the plant, and the other is, in dry, hot weather neglecting to put on a sufficient quantity of water to get the plants started before the earth around them becomes so dry as to prevent them from throwing out new roots at all, or if any are thrown out they are so feeble that the plants make a feeble growth and never do what we wanted and hoped for when we set them.

Suppose we are setting cabbage plants. The ground is in first-rate condition, and marked off both ways. Be sure to have it so mellow that the settler can work rapidly and well; the man goes ahead with the pronged hoe above mentioned. The boy with a basket of plants goes ahead of the settler just far enough to keep out of his way. The reason for this is that if it is a hot, sunny day, it takes only a few minutes of hot sun upon the roots of plants to damage them very much, even if it does not kill them outright.

The settler is upon his knees between two rows. He picks up a plant in his right hand, and at the same time runs the fingers of his left into the mellow earth and opens a space sufficiently wide and deep for the roots of the plant. He sticks the roots of his plant into the opened earth a little deeper than it stood in its original bed. He then draws his left hand from the earth which falls back to original position.

Now with both hands closed, and one on each side of the plant, he presses the earth firmly about the roots, and in so doing makes in the earth around the plant a depression that will hold the water in place. The whole thing is done in an instant, and after a short practice it is well done, provided the man is reasonably careful. If one is setting strawberry plants, and they are good, the earth should be opened much deeper than for cabbage plants. The roots are longer and should run their entire length down into the new earth. The roots that are upon the plant when it is set, do not grow themselves, but must sustain the plant until new ones are formed from which it can sustain itself, and renew its growth.

Lettuce, cabbage and cauliflower plants are about the only hot-bed plants that we set until we suppose the frosty nights are over. They will be checked for the time in their growth, but not permanently damaged by even quite heavy frosts after they are set out in open ground. Tomato, pepper, sweet potato, egg-plant, and all kinds of vines require a warm soil and warm weather, to enable them to do their best.

We commence setting plants as early in the spring as the ground and weather will allow, and continue until about the first of August, closing with celery plants for our winter supply. During the season we set about 250,000 plants. For many years past we have paid but very little, if any, atten-

tion to the weather, setting the plants whenever we got ready. We have set tens of thousands of cabbage plants about the middle of July, when the dust would fly from the bottoms of the furrows while the plowing was being done, and still we obtained fine crops of fall cabbage. When plants are set at such a time, we rather prefer to do so in the afternoon, and water immediately after setting, putting nearly or quite one quart of water around each plant. This will wet the earth around it so thoroughly that it will generally get started before the soil becomes entirely dry, though sometimes when the weather has been as hot as it was dry, we have had to go over and water the plants a second time.

I can see no difference in the results whether plants are watered morning, noon, or evening, except that more water will be needed if it be put on during the heat of the day. The hot sun and earth combined cause the water to evaporate at such times much more rapidly than at evening or during the night.

## The Sugar Maple.

The sugar maple is one of the finest of the deciduous leaved trees of North America. It is by far the noblest of the American maples, although the silver maple develops occasionally a greater trunk girth, and it is perhaps the noblest of all the maples, although the sycamore maple of Europe in the mountain valleys of the Tyrol is, when at its best, a tree second to none of its class in spread of branches and dignity of port. But the European maple lacks the lightness and brightness of foliage and the gracefulness of inflorescence peculiar to the sugar maple, while it assumes in autumn none of its brilliant colors which our American tree takes on at that season of the year and which make it then the most conspicuous feature of the landscape wherever it abounds.

The elm, to many people, is the characteristic tree of New England, because, perhaps, more than other trees, it is selected by the early settlers to stand sentinel over their homesteads, but the sugar maple is hardly less characteristic of New England and of all the Northern States, where it is almost everywhere a very common tree, growing on hillsides and in valleys, and of late years so generally planted by the roadside that it is now more often seen than the elm, which is a more fastidious tree than the maple about its nourishment, more easily affected by drought, and a far more inviting prey to noxious insects.

The sugar maple economically is one of the most valuable American trees. The wood it produces is heavy and hard, close-grained, tough and strong. It has a surface which can be highly polished, so that it is an excellent and much esteemed furniture wood, especially those formal forms with twisted and contorted grain known as bird's-eye maple. It is from the wood of this tree that American case-laminate is made in preference to that of any other, and it is used in the manufacture of hundreds of other objects, great and small, from the keel of a boat to a shoe peg. The New Englander who wants to burn better fuel than that afforded by the sugar maple must use hickory. The Indians knew the value of the sap of this tree, and soon taught Europeans how to convert it into sugar. The production of maple sugar was once a far more important industry comparatively than it is now, although the crop is steadily increasing in bulk and in money value.

The sugar maple has one characteristic which very few American trees, except some of the oaks, share with it to the same degree, and one which, when American forests are managed with the view of getting from them all they can be made to produce, will make it one of the trees most generally employed in the operations of scientific silviculture. It has the capacity to germinate and grow to a considerable size under the more or less dense shade of other trees. Young sugar maples form sometimes in the northern counties of this State, in Northern Michigan and other parts of the country where this tree is common, the larger part of the undergrowth which has sprung up in the deciduous forests. These self-sown plants, in spite of the shade which, of course, checks their growth, grow with a good deal of vigor and reach a considerable height. The beech in Europe possesses the same power of growing for many years under and among other trees, and it is for this reason that the beech is one of the most valuable subjects in all European deciduous forest operations looking to natural forest succession—the prime motive of modern scientific forestry.

The sugar maple is a far more valuable tree in the material which it produces than the European beech, and American foresters, when we have them, will have good cause for congratulating themselves in the possession of a subject so valuable and so easily managed.—*Garden and Forest.*

**The Vineyard and the Grape Arbor.**  
As the rose is the "queen of flowers," so is the grape the "king" of fruits. It has been known and cultivated as far as we know for 5,000 years, and to-day the grape and the different articles manufactured from it play a conspicuous part in the mercantile world, on the table of thousands, in hospitals and many other places. Its praises have been sung by minstrels, its virtues lauded by poets, and many millions have, since the time of Noah, worshipped at the altar of Bacchus. No other variety of fruit or berry is so extensively and universally cultivated, or more widely known as is the grape. It has a home in every country on the globe, save in the icy north. The grape culture is just now attracting considerable attention in all parts of this country—from the Atlantic to the Pacific, and from Canada to Mexico. Every year adds to the extent of the vineyards, and new varieties are annually added to the list of grapes, some of which, at least, are a valuable addition to the wine first-class wine and table-grapes already in the field. Easy as it is to cultivate the grape, it is a lamentable fact that so little is known about grape-culture by the great masses of Americans who own a farm or a lot, where they could have a vineyard or a grape arbor. Of course, some localities are not at all suited for a vineyard, but every family who has a lot can have a good grape-vine cover an arbor, or trailed about the end of the house or other buildings. The first and cardinal point is the right location for the plant. For this select a dry, warm and open place, where the sun can reach it most of the day. Whether for vineyard or arbor culture,

the ground must be prepared with the utmost care, and if not naturally rich, it should be made so by applying a well rotted compost. The old way of training and tying the poles should be abandoned, and for several reasons. First: Because it is too expensive; second: because it excludes both light and air more than is conducive to the development and ripening of the fruit, the vines being necessarily brought too close together in tying them to the poles; and a third objection to the old system is found in the fact that the close proximity of the vines themselves shuts out both sun and air too much from their neighbors. An entirely new departure in grape culture attracted my attention during a visit to my boyhood home in Germany a few years ago. There, on the vine-clad hills of the Rhine, a strange and novel sight met my eye. Where twenty-five years ago all vines were tied to poles, they are now allowed the widest range of freedom. The costly material for poles, or for posts and wire is entirely ignored. Two well-rooted vines are planted in rows, about 4½ feet apart in the rows, while the rows are given the very great distance of 15-20 feet. The two vines are then trained in opposite directions, running diagonally over the 15-20 feet space between where they are allowed to lay on the ground, except during the period of vegetation, when they are picked up and laid into wooden forks, which can be had in abundance in the woods, along creeks and thickets in waste places. When such a vineyard has been cultivated, the vines are taken from their supports and laid straight into the rows, when the intervening spaces can be plowed with perfect ease, and the least danger to the vines. During summer all upright growing vines are shortened to two leaves, while, where they are too numerous, some of them are entirely removed, together with all suckers of the current growth. This is the only work needed till the crop is ready for gathering. A liberal application of manure to the vines is easily accomplished, owing to the greatly reduced number of vines to the acre, planted on the "trailing system." In regard to the yield of such vineyards there is but one verdict, *viz.*: that they produce at least as much to the acre as where the vines are tied to poles, or run on wires. The cost of planting and equipping this vineyard is about one-sixth of the pole or wire vineyard, whereas the costs of maintaining are reduced more than one-half. The vines themselves are less liable to be winter-killed, and their early spring pruning is much easier done, and requires less time. The soil can be of the poorest quality, unsuited for anything else, as long as the vine is supplied with sufficient manure to prosper and bear. Many unsightly hills could be made the most attractive spots on many a farm, and to yield an income far above the best "bottom-land" if planted and cultivated in trailing grape-vines.—*Miami Farmer.*

## The English Craze for Orchids.

Already has the orchid mania obtained celebrity, a cult having been brought against her Grace, the Duchess of Montrose, by her florist, Mr. Sanders, of London. The Duchess loves orchids; with them she adorns her person and her mansion during the two months of the "season." The fancy thus indulged was at the cost of \$8,400! Great were her exclamations of indignation when her bill was presented, and so loud, indeed, were they that she failed to hear the often-repeated demands for payments. The florist, disgusted, sued her, and lo and behold! judgment was given against her, as to the commonest plebeian. Her Grace was ordered to pay the amount—a good sterling point for the cultivators of orchids, who have made a law unto themselves, valuing now the meanest orchids at \$5 and \$10. Therefore, good people, if you wish to indulge the craze, go ahead and pay for it!

The greatest known amateur of orchids in England is the Duke of Marlborough. He has sold his paintings, tapestries, and race-horses, but has kept his conservatories. His collection of orchids at Blenheim is worth \$30,000—a sum exceeding, according to experts, the value of the finest French collection at Ferrière. Wonderful are the orchid houses at Blenheim. There are three, each 350 yards square, always kept humid by means of steam, a condition essential to tropical orchids; dry heat is death to them. The Duke of Marlborough has orchid-houses in almost every country where they are indigenous—Mexico, India and Ceylon especially. The natives, who at first ridiculed the foreign orchid-houses, have now learned the secret of their incomprehensible value, and will only guide them to the spots where they grow when paid exorbitant prices.—*San Francisco Bulletin.*

## Horticultural Items.

The G. V. R. Horticultural Society are considering whether it would not pay to purchase a large horse power pump for orchard spraying, and let some member make a business of orchard spraying during the season.

Seeds of beets, carrots and parsnips are slow to germinate. They may be made to swell and sprout quickly if placed in a flannel bag and saturated with warm water daily. Some gardeners mix the seeds with fine earth before placing the seeds in the box.

The Horticultural (Eng.) Times says that it comes from the sea cannot be overestimated as regards its value on asparagus beds, or on rhubarb. Those living near the sea are advised to dress the beds with seaweeds and drift from the sea. Sea salt contains several constituents not found in common salt.

The Champion of England and is one of the most delicious varieties of the pea. It ought to find a place in every garden, and should be the main dependence for a later crop. Mr. Leach's Little Gem planted in four plantings of a week apart will give peas of quite good quality for four or five weeks, or until beans are sown, &c., come.

ENTOMOLOGIST WARD, of the Ohio Agricultural Experiment Station, has used without injury to the foliage, one pound of London purple to 100 gallons of water, in protecting cherries from curculio attack, saving thereby 75 per cent of the fruit liable to injury. The same result was obtained by spraying two or three times with the weaker mixture of one pound of the purple in 160 gallons of water.

Tests have been made to ascertain the truth of the belief that row and fresh seeds of squashes, pumpkins and melons produce plants which run to vines more than those from old seeds. About 450 were grown, all of which were accurately measured and the fruit carefully weighed. There was no evidence whatever that older seeds give shorter and more productive vines. In fact there was no uniformity of behavior between seeds of like ages. All the variation was evidently due to heredity of the individual seeds or to other conditions than the age of the seeds.

WHERE cucumbers are raised by the acre it is common to talk of protecting them from the striped cucumber beetle by netting, &c. A correspondent of the *Rural New Yorker* tells how he circumvented the beetle: "Into a pall of common land plaster we put several spirits of turpentine to give the former a strong flavor of the latter. Perhaps a tablespoonful of turpentine to two or three gallons of plaster would be the right proportion. In the morning, after the vines have shown up nicely, a man goes through the patch, taking two rows at a time, and scatters a small pinch of the plaster on the leaves of every strip of beetles, and so on down a second application. This remedy has worked perfectly here for the past ten years."

**Kalamazoo Celery.**  
Kalamazoo has become famed all over the country for its celery, being known as "the Celery City." The *Kalamazoo Gazette* has the following account of the first crop ever raised there:

As far back as 1856 Kalamazoo was surrounded by what seemed to be, at that time, a worthless strip of marsh land. It was looked upon by farmers as a waste of land, not being worth the trouble of tillage, as higher ground was better adapted to farming and much easier worked. Thus our best and richest land lay for years untouched and seemingly unfit for use. In the year 1857 an enterprising Hollander, Garret Remaine, having made a study of the rich soil constituting this great marsh, cleared a small space directly opposite the water works on Burdick Street, and there planted a few seeds of a vegetable known in Holland as celery. This was the beginning, the foundation of an industry, bound to make Kalamazoo famous for many years to come, throughout the land. Mr. Remaine anxiously watched his first crop, but felt almost certain of success as he had seen, in his native land, celery grown in great quantities on the same kind of soil. After a few weeks, he was awarded by as fine a crop of the favorite vegetable as was ever grown here. He carefully washed the choicest stalks, of which there was just a wheelbarrow load. He started down town expecting to find a ready market, and a great treat for native Kalamazoons. He stopped on the corner of Burdick and Main streets ready for busi-

ness. Many people gathered around the queer load, but few dared purchase. "Is it good to eat?" "How do you cook it?" and other foolish questions were asked. To many, he tried to give it away, but in this he failed, but few were willing to taste it. At last, being sorely disgusted, he pushed the same load home and fed it to the hogs. It was certainly a poor reception for Kalamazoo's first celery. The next year Mr. R. took fresh courage. He knew celery could be raised to pay, and pay big too; he cleared a larger space, raised more celery, and it sold. Outsiders learned of the excellent quality raised, and orders came more than he could fill and what was still more encouraging to him the home people began to relish it. What has taken place since then, the average reader knows. Thousands of acres of the once worthless land will soon be rich green fields of celery. The crop for 1890 will probably be the largest ever raised here and the income will reach over one million dollars. Mr. Remaine is a hale old man and is still interested in celery. He has done his work well and good, has laid the foundation for what is known all over the United States as the "Celery City," and why not give him the title, "The Celery King?"

**Apianian.**  
For the Michigan Farmer.

## TRANSFERRING.

I am frequently asked the question, when is the best time to transfer bees from old boxes, salt barrels, etc., and the best manner of doing it? As to time, in the hands of a master it can be done at any time, but to the novice I should recommend the season of apple bloom in any latitude. At this time, there is a good supply of brood, the combs are tough and comparatively free of honey and not very heavy, and there is honey enough coming in to enable the bees to patch up the combs, place everything in the best of order, and but little danger from robbers.

The manner of procedure varies as does the minds of men. We are told to procure wires, thorns, small strips of wood and many other clumsy devices that to me were never practical. I use only common string to hold the combs in place until the bees can fasten them in—such as you buy at any store and is used to tie up goods with. I should do the work out doors on a warm day when the bees were at work, as there are less bees in the hive to be in the way.

For ease of manipulation I should place a table near where the old hive stands and on one end spread an old blanket or quilt on which to work, and after giving the colony a good smoking turn it bottom side up on the other end of the table, if it is an old hive, if barrel cut and remove all the combs, detach the combs from the staves and remove half of them. Your new hive is now on the old stand and the field bees will return to that as will the bees that take wing while you are working. You should have a lot of strings prepared, about twenty inches long, lay about four of these upon your blanket that is to protect the brood from the hard board, and proceed to cut out the largest and most valuable combs, brush the adhering bees up on the alighting board of the new hive and lay the comb upon the strings. Now place the frame on the comb and cut around the inside, holding the knife a little slanting so the frame will slip over tightly, remove the scraps and press the frame over the comb and tie the strings tightly and hang it in the new hive; repeat the operation until the hive or frames enough to fill the hive are filled with combs, always selecting the best worker comb and that containing brood and honey. During the entire operation keep a sharp lookout for the queen and be sure and get her unharned into the new hive, but you will not be likely to find her until toward the last. Gather up all the old pieces of comb and place them in a flat pan and place all in the upper story of the hive, where by leaving a small opening at the back end of the frames the bees will clean every thing up besides being very much benefited, and it will surprise you to see how they will thrive and show their appreciation of their new home.

Geo. E. HILTON.

**James Heddon** says a pure Italian bee is one that has no impure "blood." One can be distinguished by "faith" and plenty of yellow bands. A hybrid can be recognized by a "lack of faith" and a lack of the yellow bands, provided there is a great distinction of color. J. E. Pond says a pure Italian worker-bee is the progeny of a queen whose whole worker progeny will show three distinct yellow bands on the abdomen, when they are filled with nectar. A hybrid may, or may not, have three distinct bands, and we can only decide on purity by examining all the bees of a colony. If a queen produces a colony, a part of which shows two bands, a part one band, and a part three bands, such bees are all hybrids (so called), and among many show three bands. Prof. Cook says the workers do not all show the three yellow bands.

**C. Theilmann**, in the *American Bee Journal*, talks about ripening honey. He thinks there is but little of the extracted honey put upon the market which has its full flavor and good keeping qualities unless artificially ripened, and that the quicker this process after it is taken from the hive the better it will be in all respects. Honey, sealed up airtight, right from the extractor, will keep as long as so sealed, but as there is always some unripe honey in it, it will ferment more or less when exposed, and get that queer, sharp twang in taste. In fact, it gets partly sour, and there is no way yet found to get that out of it again, and it is partly spoiled, and does much harm in the market. Honey newly from the extractor, put into the cellar, or other damp places, or put in an ordinary warm place with cool nights, in open vessels, will be almost sure to produce bacilli, and will sour; but take the same honey to a room in which the air is pure, and from 85° to 90° above zero for from three to five weeks, and the same honey will be the best of its kind in every respect that can possibly be produced. The same is true of comb honey.

**F.E.C. KIDNEY BLOOD REMEDY**  
\$1.00 A BOTTLE, SIX FOR \$5. TRY IT TO-DAY

Blood makes a trip around the body in a few seconds. If pure, it repairs current waste and keeps up vitality. If filled with kidney acid poison, you will have

**SOUR BLOOD,**  
which will change all the fluids of the system, and gradually break down every vital organ and give you a multitude of unyielding disorders. To sweeten the blood, use the guaranteed vegetable alternative,

**F.E.C. KIDNEY BLOOD REMEDY**  
\$1.00 A BOTTLE, SIX FOR \$5. TRY IT TO-DAY

**F.E.C. KIDNEY BLOOD REMEDY**  
\$1.00 A BOTTLE, SIX FOR \$5. TRY IT TO-DAY

**F.E.C. KIDNEY BLOOD REMEDY**  
\$1.00 A BOTTLE, SIX FOR \$5. TRY IT TO-DAY

**F.E.C. KIDNEY BLOOD REMEDY**  
\$1.00 A BOTTLE, SIX FOR \$5. TRY IT TO-DAY

**F.E.C. KIDNEY BLOOD REMEDY**  
\$1.00 A BOTTLE, SIX FOR \$5. TRY IT TO-DAY

**F.E.C. KIDNEY BLOOD REMEDY**  
\$1.00 A BOTTLE, SIX FOR \$5. TRY IT TO-DAY

**F.E.C. KIDNEY BLOOD REMEDY**  
\$1.00 A BOTTLE, SIX FOR \$5. TRY IT TO-DAY

**F.E.C. KIDNEY BLOOD REMEDY**  
\$1.00 A BOTTLE, SIX FOR \$5. TRY IT TO-DAY

**F.E.C. KIDNEY BLOOD REMEDY**  
\$1.00 A BOTTLE, SIX FOR \$5. TRY IT TO-DAY

**F.E.C. KIDNEY BLOOD REMEDY**  
\$1.00 A BOTTLE, SIX FOR \$5. TRY IT TO-DAY

**F.E.C. KIDNEY BLOOD REMEDY**  
\$1.00 A BOTTLE, SIX FOR \$5. TRY IT TO-DAY

**F.E.C. KIDNEY BLOOD REMEDY**  
\$1.00 A BOTTLE, SIX FOR \$5. TRY IT TO-DAY

**F.E.C. KIDNEY BLOOD REMEDY**  
\$1.00 A BOTTLE, SIX FOR \$5. TRY IT TO-DAY

**F.E.C. KIDNEY BLOOD REMEDY**  
\$1.00 A BOTTLE, SIX FOR \$5. TRY IT TO-DAY

**F.E.C. KIDNEY BLOOD REMEDY**  
\$1.00 A BOTTLE, SIX FOR \$5. TRY IT TO-DAY

**F.E.C. KIDNEY BLOOD REMEDY**  
\$1.00 A BOTTLE, SIX FOR \$5. TRY IT TO-DAY

**F.E.C. KIDNEY BLOOD REMEDY**  
\$1.00 A BOTTLE, SIX FOR \$5. TRY IT TO-DAY

**F.E.C. KIDNEY BLOOD REMEDY**  
\$1.00 A BOTTLE, SIX FOR \$5. TRY IT TO-DAY

**F.E.C. KIDNEY BLOOD REMEDY**  
\$1.00 A BOTTLE, SIX FOR \$5. TRY IT TO-DAY

**F.E.C. KIDNEY BLOOD REMEDY**  
\$1.00 A BOTTLE, SIX FOR \$5. TRY IT TO-DAY

a billiard table. By means of this simple contrivance fruit can be rapidly and economically sorted into the boxes without any damage being done by abrasion or bruising."

**Apianian.**  
For the Michigan Farmer.

## TRANSFERRING.

I am frequently asked the question, when is the best time to transfer bees from old boxes, salt barrels, etc., and the best manner of doing it? As to time, in the hands of a master it can be done at any time, but to the novice I should recommend the season of apple bloom in any latitude. At this time, there is a good supply of brood, the combs are tough and comparatively free of honey and not very heavy, and there is honey enough coming in to enable the bees to patch up the combs, place everything in the best of order, and but little danger from robbers.

The manner of procedure varies as does the minds of men. We are told to procure wires, thorns, small strips of wood and many other clumsy devices that to me were never practical. I use only common string to hold the combs in place until the bees can fasten them in—such as you buy at any store and is used to tie up goods with. I should do the work out doors on a warm day when the bees were at work, as there are less bees in the hive to be in the way.

For ease of manipulation I should place a table near where the old hive stands and on one end spread an old blanket or quilt on which to work, and after giving the colony a good smoking turn it bottom side up on the other end of the table, if it is an old hive, if barrel cut and remove all the combs, detach the combs from the staves and remove half of them. Your new hive is now on the old stand and the field bees will return to that as will the bees that take wing while you are working. You should have a lot of strings prepared, about twenty inches long, lay about four of these upon your blanket that is to protect the brood from the hard board, and proceed to cut out the largest and most valuable combs, brush the adhering bees up on the alighting board of the new hive and lay the comb upon the strings. Now place the frame on the comb and cut around the inside, holding the knife a little slanting so the frame will slip over tightly, remove the scraps and press the frame over the comb and tie the strings tightly and hang it in the new hive; repeat the operation until the hive or frames enough to fill the hive are filled with combs, always selecting the best worker comb and that containing brood and honey. During the entire operation keep a sharp lookout for the queen and be sure and get her unharned into the new hive, but you will not be likely to find her until toward the last. Gather up all the old pieces of comb and place them in a flat pan and place all in the upper story of the hive, where by leaving a small opening at the back end of the frames the bees will clean every thing up besides being very much benefited, and it will surprise you to see how they will thrive and show their appreciation of their new home.

Geo. E. HILTON.

**James Heddon** says a pure Italian bee is one that has no impure "blood." One can be distinguished by "faith" and plenty of yellow bands. A hybrid can be recognized by a "lack of faith" and a lack of the yellow bands, provided there is a great distinction of color. J. E. Pond says a pure Italian worker-bee is the progeny of a queen whose whole worker progeny will show three distinct yellow bands on the abdomen, when they are filled with nectar. A hybrid may, or may not, have three distinct bands, and we can only decide on purity by examining all the bees of a colony. If a queen produces a colony, a part of which shows two bands, a part one band, and a part three bands, such bees are all hybrids (so called), and among many show three bands. Prof. Cook says the workers do not all show the three yellow bands.

**C. Theilmann**, in the *American Bee Journal*, talks about ripening honey. He thinks there is but little of the extracted honey put upon the market which has its full flavor and good keeping qualities unless artificially ripened, and that the quicker this process after it is taken from the hive the better it will be in all respects. Honey, sealed up airtight, right from the extractor, will keep as long as so sealed, but as there is always some unripe honey in it, it will ferment more or less when exposed, and get that queer, sharp twang in taste. In fact, it gets partly sour, and there is no way yet found to get that out of it again, and it is partly spoiled, and does much harm in the market. Honey newly from the extractor, put into the cellar, or other damp places, or put in an ordinary warm place with cool nights, in open vessels, will be almost sure to produce bacilli, and will sour; but take the same honey to a room in which the air is pure, and from 85° to 90° above zero for from three to five weeks, and the same honey will be the best of its kind in every respect that can possibly be produced. The same is true of comb honey.

**F.E.C. KIDNEY BLOOD REMEDY**  
\$1.00 A BOTTLE, SIX FOR \$5. TRY IT TO-DAY

**F.E.C. KIDNEY BLOOD REMEDY**  
\$1.00 A BOTTLE, SIX FOR \$5. TRY IT TO-DAY

**F.E.C. KIDNEY BLOOD REMEDY**  
\$1.00 A BOTTLE, SIX FOR \$5. TRY IT TO-DAY

**F.E.C. KIDNEY BLOOD REMEDY**  
\$1.00 A BOTTLE, SIX FOR \$5. TRY IT TO-DAY



**MICHIGAN FARMER.**  
DETROIT, SATURDAY, MAY 3, 1890.  
This Paper is Entered at the Detroit Post-  
office as second class matter.  
**SALE DATES CLAIMED.**

**WEDNESDAY, MAY 7.**—J. S. & W. G. Crosby,  
Shorthorn bulls and Poland-China sows,  
Greenville, Mich. J. A. Mann, Auctioneer.  
**THURSDAY, MAY 23.**—J. M. Sterling & Co.,  
Holstein-Friesian cattle, Fair Grounds Mon-  
roe, J. A. Mann, Auctioneer.

**THURSDAY, JUNE 6.**—Wm. Ball and W. E.  
Boyd, Joint sale of Shorthorns. To be held  
on farm of the latter.

**THURSDAY, OCTOBER 16.**—J. W. Hibbard,  
Bennington, Shilashewe, Co. Berkshire swine,  
Merino sheep and Shorthorn cattle.

**WHEAT.**

The receipts of wheat in this market the  
past week amounted to 59,011 bu., against  
18,835 bu. the previous week, and 41,205  
bu. for corresponding week in 1889. Ship-  
ments for the week were 43,367 bu., and 114,071  
bu. the corresponding week last year. The  
stocks of wheat now held in this city  
amount to 202,487 bu., against 194,631  
bu. last week, and 134,969 bu. at the cor-  
responding date in 1889. The visible supply  
of this grain on April 26 was 23,983,163 bu.,  
against 24,513,272 bu. the previous week,  
and 26,043,318 bu. for the corresponding week in  
1889. This shows a decrease from the  
amount reported the previous week of  
531,104 bushels. As compared with a year  
ago the visible supply shows a decrease of  
2,060,050 bu.

While the market has shown considerable  
fluctuation during the week, the general  
tendency has been upwards. As compared  
with a week ago the advance is a substantial  
one—2c on No. 1 white, 2½c on No. 2 red,  
and 2½c on No. 3 red. Thursday wheat  
reached the top price for the season, a few  
sales of No. 2 red being made at 34½c. A  
few days value weakened owing to the gen-  
eral feeling among those who held wheat that  
it was a good time to sell. This selling re-  
duced prices in the face of a reported ad-  
vance of 1d. by cables, with strong markets,  
and liberal offers. The decline was great-  
est on spot wheat, and will probably prove  
only temporary. The whole trend of prices  
on both sides of the Atlantic is upwards,  
and while the advance has been slow we be-  
lieve it has come to stay for a time. Those  
who have last year's crop yet on hand will  
get a handsome bonus for holding.

The following table exhibits the daily closing  
prices of spot wheat in this market from  
April 10th to May 24th inclusive:

	No. 1	No. 2	No. 3
White	82 1/2	81 1/2	80 1/2
Red	81 1/2	80 1/2	79 1/2
Yellow	80 1/2	79 1/2	78 1/2
April 10	82 1/2	81 1/2	80 1/2
11	82 1/2	81 1/2	80 1/2
12	82 1/2	81 1/2	80 1/2
13	82 1/2	81 1/2	80 1/2
14	82 1/2	81 1/2	80 1/2
15	82 1/2	81 1/2	80 1/2
16	82 1/2	81 1/2	80 1/2
17	82 1/2	81 1/2	80 1/2
18	82 1/2	81 1/2	80 1/2
19	82 1/2	81 1/2	80 1/2
20	82 1/2	81 1/2	80 1/2
21	82 1/2	81 1/2	80 1/2
22	82 1/2	81 1/2	80 1/2
23	82 1/2	81 1/2	80 1/2
24	82 1/2	81 1/2	80 1/2
May 1	82 1/2	81 1/2	80 1/2
2	82 1/2	81 1/2	80 1/2
3	82 1/2	81 1/2	80 1/2
4	82 1/2	81 1/2	80 1/2
5	82 1/2	81 1/2	80 1/2
6	82 1/2	81 1/2	80 1/2
7	82 1/2	81 1/2	80 1/2
8	82 1/2	81 1/2	80 1/2
9	82 1/2	81 1/2	80 1/2
10	82 1/2	81 1/2	80 1/2
11	82 1/2	81 1/2	80 1/2
12	82 1/2	81 1/2	80 1/2
13	82 1/2	81 1/2	80 1/2
14	82 1/2	81 1/2	80 1/2
15	82 1/2	81 1/2	80 1/2
16	82 1/2	81 1/2	80 1/2
17	82 1/2	81 1/2	80 1/2
18	82 1/2	81 1/2	80 1/2
19	82 1/2	81 1/2	80 1/2
20	82 1/2	81 1/2	80 1/2
21	82 1/2	81 1/2	80 1/2
22	82 1/2	81 1/2	80 1/2
23	82 1/2	81 1/2	80 1/2
24	82 1/2	81 1/2	80 1/2
May 1	82 1/2	81 1/2	80 1/2
2	82 1/2	81 1/2	80 1/2
3	82 1/2	81 1/2	80 1/2
4	82 1/2	81 1/2	80 1/2
5	82 1/2	81 1/2	80 1/2
6	82 1/2	81 1/2	80 1/2
7	82 1/2	81 1/2	80 1/2
8	82 1/2	81 1/2	80 1/2
9	82 1/2	81 1/2	80 1/2
10	82 1/2	81 1/2	80 1/2
11	82 1/2	81 1/2	80 1/2
12	82 1/2	81 1/2	80 1/2
13	82 1/2	81 1/2	80 1/2
14	82 1/2	81 1/2	80 1/2
15	82 1/2	81 1/2	80 1/2
16	82 1/2	81 1/2	80 1/2
17	82 1/2	81 1/2	80 1/2
18	82 1/2	81 1/2	80 1/2
19	82 1/2	81 1/2	80 1/2
20	82 1/2	81 1/2	80 1/2
21	82 1/2	81 1/2	80 1/2
22	82 1/2	81 1/2	80 1/2
23	82 1/2	81 1/2	80 1/2
24	82 1/2	81 1/2	80 1/2
May 1	82 1/2	81 1/2	80 1/2
2	82 1/2	81 1/2	80 1/2
3	82 1/2	81 1/2	80 1/2
4	82 1/2	81 1/2	80 1/2
5	82 1/2	81 1/2	80 1/2
6	82 1/2	81 1/2	80 1/2
7	82 1/2	81 1/2	80 1/2
8	82 1/2	81 1/2	80 1/2
9	82 1/2	81 1/2	80 1/2
10	82 1/2	81 1/2	80 1/2
11	82 1/2	81 1/2	80 1/2
12	82 1/2	81 1/2	80 1/2
13	82 1/2	81 1/2	80 1/2
14	82 1/2	81 1/2	80 1/2
15	82 1/2	81 1/2	80 1/2
16	82 1/2	81 1/2	80 1/2
17	82 1/2	81 1/2	80 1/2
18	82 1/2	81 1/2	80 1/2
19	82 1/2	81 1/2	80 1/2
20	82 1/2	81 1/2	80 1/2
21	82 1/2	81 1/2	80 1/2
22	82 1/2	81 1/2	80 1/2
23	82 1/2	81 1/2	80 1/2
24	82 1/2	81 1/2	80 1/2
May 1	82 1/2	81 1/2	80 1/2
2	82 1/2	81 1/2	80 1/2
3	82 1/2	81 1/2	80 1/2
4	82 1/2	81 1/2	80 1/2
5	82 1/2	81 1/2	80 1/2
6	82 1/2	81 1/2	80 1/2
7	82 1/2	81 1/2	80 1/2
8	82 1/2	81 1/2	80 1/2
9	82 1/2	81 1/2	80 1/2
10	82 1/2	81 1/2	80 1/2
11	82 1/2	81 1/2	80 1/2
12	82 1/2	81 1/2	80 1/2
13	82 1/2	81 1/2	80 1/2
14	82 1/2	81 1/2	80 1/2
15	82 1/2	81 1/2	80 1/2
16	82 1/2	81 1/2	80 1/2
17	82 1/2	81 1/2	80 1/2
18	82 1/2	81 1/2	80 1/2
19	82 1/2	81 1/2	80 1/2
20	82 1/2	81 1/2	80 1/2
21	82 1/2	81 1/2	80 1/2
22	82 1/2	81 1/2	80 1/2
23	82 1/2	81 1/2	80 1/2
24	82 1/2	81 1/2	80 1/2
May 1	82 1/2	81 1/2	80 1/2
2	82 1/2	81 1/2	80 1/2
3	82 1/2	81 1/2	80 1/2
4	82 1/2	81 1/2	80 1/2
5	82 1/2	81 1/2	80 1/2
6	82 1/2	81 1/2	80 1/2
7	82 1/2	81 1/2	80 1/2
8	82 1/2	81 1/2	80 1/2
9	82 1/2	81 1/2	80 1/2
10	82 1/2	81 1/2	80 1/2
11	82 1/2	81 1/2	80 1/2
12	82 1/2	81 1/2	80 1/2
13	82 1/2	81 1/2	80 1/2
14	82 1/2	81 1/2	80 1/2
15	82 1/2	81 1/2	80 1/2
16	82 1/2	81 1/2	80 1/2
17	82 1/2	81 1/2	80 1/2
18	82 1/2	81 1/2	80 1/2
19	82 1/2	81 1/2	80 1/2
20	82 1/2	81 1/2	80 1/2
21	82 1/2	81 1/2	80 1/2
22	82 1/2	81 1/2	80 1/2
23	82 1/2	81 1/2	80 1/2
24	82 1/2	81 1/2	80 1/2
May 1	82 1/2	81 1/2	80 1/2
2	82 1/2	81 1/2	80 1/2
3	82 1/2	81 1/2	80 1/2
4	82 1/2	81 1/2	80 1/2
5	82 1/2	81 1/2	80 1/2
6	82 1/2	81 1/2	80 1/2
7	82 1/2	81 1/2	80 1/2
8	82 1/2	81 1/2	80 1/2
9	82 1/2	81 1/2	80 1/2
10	82 1/2	81 1/2	80 1/2
11	82 1/2	81 1/2	80 1/2
12	82 1/2	81 1/2	80 1/2
13	82 1/2	81 1/2	80 1/2
14	82 1/2	81 1/2	80 1/2
15	82 1/2	81 1/2	80 1/2
16	82 1/2	81 1/2	80 1/2
17	82 1/2	81 1/2	80 1/2
18	82 1/2	81 1/2	80 1/2
19	82 1/2	81 1/2	80 1/2
20	82 1/2	81 1/2	80 1/2
21	82 1/2	81 1/2	80 1/2
22	82 1/2	81 1/2	80 1/2
23	82 1/2	81 1/2	80 1/2
24	82 1/2	81 1/2	80 1/2
May 1	82 1/2	81 1/2	80 1/2
2	82 1/2	81 1/2	80 1/2
3	82 1/2	81 1/2	80 1/2
4	82 1/2	81 1/2	80 1/2
5	82 1/2	81 1/2	80 1/2
6	82 1/2	81 1/2	80 1/2
7	82 1/2	81 1/2	80 1/2
8	82 1/2	81 1/2	80 1/2
9	82 1/2	81 1/2	80 1/2
10	82 1/2	81 1/2	80 1/2
11	82 1/2	81 1/2	80 1/2
12	82 1/2	81 1/2	80 1/2
13	82 1/2	81 1/2	80 1/2
14	82 1/2	81 1/2	80 1/2
15	82 1/2	81 1/2	80 1/2
16	82 1/2	81 1/2	80 1/2
17	82 1/2	81 1/2	80 1/2
18	82 1/2	81 1/2	80 1/2
19	82 1/2	81 1/2	80 1/2
20	82 1/2	81 1/2	80 1/2
21	82 1/2	81 1/2	80 1/2
22	82 1/2	81 1/2	80 1/2
23	82 1/2	81 1/2	80 1/2
24	82 1/2	81 1/2	80 1/2
May 1	82 1/2	81 1/2	80 1/2
2	82 1/2	81 1/2	80 1/2
3	82 1/2	81 1/2	80 1/2
4	82 1/2	81 1/2	80 1/2
5	82 1/2	81 1/2	80 1/2
6	82 1/2	81 1/2	80 1/2
7	82 1/2	81 1/2	80 1/2
8	82 1/2	81 1/2	80 1/2
9	82 1/2	81 1/2	80 1/2
10	82 1/2	81 1/2	80 1/2
11	82 1/2	81 1/2	80 1/2
12	82 1/2	81 1/2	80 1/2
13	82 1/2	81 1/2	80 1/2
14	82 1/2	81 1/2	80 1/2
15	82 1/2	81 1/2	80 1/2
16	82 1/2	81 1/2	80 1/2
17	82 1/2	81 1/2	80 1/2
18	82 1/2	81 1/2	80 1/2
19	82 1/2	81 1/2	80 1/2
20	82 1/2	81 1/2	80 1/2
21	82 1/2	81 1/2	80 1/2
22	82 1/2	81 1/2	80 1/2
23	82 1/2	81 1/2	80 1/2
24	82 1/2	81 1/2	80 1/2
May 1	82 1/2	81 1/2	80 1/2
2	82 1/2	81 1/2	80 1/2
3	82 1/2	81 1/2	80 1/2
4	82 1/2	81 1/2	80 1/2
5	82 1/2	81 1/2	80 1/2
6	82 1/2	81 1/2	80 1/2
7	82 1/2	81 1/2	80 1/2
8	82 1/2	81 1/2	80 1/2
9	82 1/2	81 1/2	80 1/2
10	82 1/2	81 1/2	80 1/2
11	82 1/2	81 1/2	80 1/2
12	82 1/2	81 1/2	80 1/2
13	82 1/2	81 1/2	80 1/2
14	82 1/2	81 1/2	80 1/2
15	82 1/2	81 1/2	80 1/2
16	82 1/2	81 1/2	80 1/2
17	82 1/2	81 1/2	80 1/2
18	82 1/2	81 1/2	80 1/2
19	82 1/2	81 1/2	80 1/2
20	82 1/2	81 1/2	80 1/2
21	82 1/2	81 1/2	80 1/2
22	82 1/2	81 1/2	80 1/2
23	82 1/2	81 1/2	80 1/2
24	82 1/2	81 1/2	80 1/2
May 1	82 1/2	81 1/2	80 1/2
2	82 1/2	81 1/2	80 1/2
3	82 1/2	81 1/2	80 1/2
4	82 1/2	81 1/2	80 1/2
5	82 1/2	81 1/2	80 1/2
6	82 1/2	81 1/2	80 1/2
7	82 1/2	81 1/2	80 1/2
8	82 1/2	81 1/2	80 1/2
9	82 1/2	81 1/2	80 1/2
10	82 1/2	81 1/2	80 1/2
11	82 1/2	81 1/2	80 1/2
12	82 1/2	81 1/2	80 1/2
13	82 1/2	81 1/2	80 1/2
14	82 1/2	81 1/2	80 1/2
15	82 1/2	81 1/2	80 1/2
16	82 1/2	81 1/2	80 1/2
17	82 1/2	81 1/2	80 1/2
18	82 1/2	81 1/2	80 1/2
19	82 1/2	81 1/2	80 1/2



**WATKINS STOCK FARM.** Birmingham, Mich., Shetland ponies, Exmore ponies, high-class Jersey cattle, Small Yorkshire and Poland China swine, registered, and individually excellent. Stock for sale.

POULTRY—Rose Comb Brown and White Leghorns, Plymouth Rocks, Light Brahmas. Egg-laying season, \$1.25 per 13; \$2.01 per 26; \$3.00 per 49. G. A. Watkins, McGraw Building, Detroit.

**FINE POULTRY!**

**Michigan Poultry Farm, Saline, Mich.,**  
HEADQUARTERS FOR  
**Langshans, Light Brahmas, Plymouth Rocks,**  
**White Plymouth Rocks, White Wy-**  
**andottes and Pekin Ducks.**  
Our stock has won more prizes at leading

country knows that that or any other breeder in Michigan. Stock and eggs for sale at reasonable prices.

---

### POULTRY SUPPLIES

of every description. Best wire netting 36c. per square foot. Oyster shell, bone meal, prepared meat, bone mills, water fountains, and everything needed in the poultry yard.

Send stamp for our handsome 40 page illustrated catalogue, discussing all our stock and our 6,000 poultry farm. Address

**MICHIGAN POULTRY FARM,**  
Geo. J. NISSELY, Proprietor. Saline, Mich.

## VICTORIA HOGS.

I have a lot of Victoria hogs, both sexes, and different ages, which I will sell at very reasonable prices. Stock all recorded or eligible to record. Address

**O. ROBINSON,**  
mi-tf Pontiac, Mich.

**Wolverine Stock Farm!**  
*AMOS PARMENTER, Prop.,*  
**American Merino Sheep and**  
**Poland-China Swine.**

**VERNON, - - MICH.**  
I began breeding Poland-China swine in 1885. My purchases have all been from the herd of L. W. & O. Barnes, and of their breeding, except the boar Black Success, bred by E. J. Klever. I have now for sale some extra pigs from Barnes Luck, Luck Again, and Black Success. Black

**L. W. & O. BARNES,**  
— PROPRIETORS OF —  
**"LAKE VIEW" STOCK FARM.**

**Byron, Shiawassee Co., Mich.**  
 Breeders of pure bred Poland-China swine and registered Merino sheep. Swine recorded in C. & P. C. Record. Our herd is one of the finest and best bred herds in the State, and has taken more than 100 premiums at the Michigan State Fair in the past five years than any other herd. We breed only from animals of fine quality, as well as gilt-edged pedigrees. We have now for sale a superior lot of vigorous, hearty and extra dark-colored Poland-China swine.

**MOUND SPRING BREEDING FARM**

**J. W. HIBBARD, Proprietor.**  
**BENNINGTON, SHIAWASSEE COUNTY, MICH.**

---

**REGISTERED BERKSHIRE SWINE.**  
 of improved breeding and unexcelled individuality; my herd having won more prizes at the leading fairs of Michigan in the past four years.

**SHORTHORNS**—The following families are represented in our herd: Oxford Vanquish, Yonny Phyllis, Adelaide, etc.


**AMERICAN MERINOS**—Sheep of approved breeding. Individual merit a specialty. Personal inspection invited. Correspondence solicited.

All stock recorded and guaranteed as representative.

My boars won the highest prizes at the large

fairs in Canada, and at the Tri-State Fair at Toledo, Ohio. In 1887; also first prize and diploma at the Michigan State Fair. In 1888 they won the first prize in class and the diploma for best of any age. At the Wisconsin State Fair they won every first and sweepstakes they were entered for (two firsts and two sweepstakes). In 1889 at the Michigan State Fair my hogs won every first prize they were showed for and there were five herds in competition, such as J. W.

Hibbard's and others. First on yearling boars; first and second on boar under one year; first and third on two year old sows; first, second and third on yearling sows; first and second on sows under one year; and the diploma for the best boar any age. I don't show my hogs at the small fairs, but they have won the highest honors at the largest fairs in the world and there have always had strong competition.

 Mention MICHIGAN FARMER when writing.

012-tf

**B. N. COOLEY,**  
COLDWATER, MICH.

---

**WE,**  
Todd Improved Cheaters  
have been crowned  
King in the Show Ring

**LOOK HERE**

**The Brookside Stock Farm**  
is where you will find as good Poland-Chin  
swine, Shropshire sheep and Bronze turkeys  
can be found anywhere. Pedigrees furnish  
with all sales. Prices low. Write your want  
or come and see us.

n2-6m

E. P. ELY & SON,  
NILES, MICH.

---

**SHORT HORNS**

**FOR SALE.**

Bulls, heifers, cows and calves of choice milking strains and sired to high-bred bulls. Particulars address

**B. J. BIDWELL;**  
my44 Tecumseh, Mich

---

**OAK HILL.**

**STOCK FARM**  
C. E. LOCKWOOD, - Proprietor.  
WASHINGTON, MACOMB CO., MICH.

**Clydesdale Horses.**  
Young Contest No. 6408, Vol. 10, at the head stud. The first premium horse at the Michigan State Fair five years in succession.

**American Merino Sheep**

of Atwood stock, descended from flocks of P. Clark, Edwin Hammond and W. R. Sanford.

---

## Berkshire Hogs

of the most fashionable families.

All stock recorded or guaranteed as registered. Stock for sale at all times.

### Shorthorn Bulls For Sale

**For Sale Very Cheap**

and  
rn



## Poetry.

## WHITE LILACS.

A year ago, a year ago  
 I stood beneath the lilac tree,  
 Her face with light and life aglow,  
 And pulled the branches down for me.  
 The blossoms swung against her hair  
 Like fairy feathers, crisp and white;  
 She looked so radiant and so fair,  
 With flashing smile and glances bright.  
 Now here the lilacs bloom again;  
 They crown the tree in sun and rain,  
 Fragrant and true in sun and rain,  
 A steady joy to all who find.  
 But where is she who stood below  
 And bent the white plumes down to meet  
 Ah, mournful question! Well and woe  
 Came sighing through the lilac tree.  
 These years are sweet and bright no more;  
 They closed ere spring had breathed its bloom;  
 That living soul that faded before  
 Is laid in death's eternal calm.  
 And now above her green grave,  
 With other flowers in season strewed,  
 The lilacs softly wave,  
 And perfume all the solitude.  
 For life has gone and love has fled;  
 And yet the year comes round again,  
 Whatever little tears are shed,  
 Whatever little tears are shed,  
 Whatever little tears are shed,  
 There is no grief in flower or field;  
 No memory haunts the lilac tree;  
 Nor hope nor love the roses yield,  
 Nor weeps the dew for loves that flee.  
 Yet there she stands each day,  
 When the white blossoms gently fall;  
 And all the blossoms earth and air  
 Shall perish like a fading fall.  
 But she who bent the lilac bough,  
 Who sleeps to day beneath the ead,  
 Shall live with glory on her brow,  
 And greet me when I go to God.  
 —Euse Terry Cooke.

## WHAT IS GOOD.

"What is the real good?"  
 I asked in musing mood.  
 Order, said the law court;  
 Knowledge, said the school;  
 Truth, said the wise man;  
 Pleasure, said the fool;  
 Love, said the maiden;  
 Beauty, said the page;  
 Freedom, said the dreamer;  
 Home, said the sage;  
 Fame, said the soldier;  
 Equity the seer.  
 Spoke my heart full sadly,  
 "The answer is not here."  
 Then within my bosom  
 Softly this I heard:  
 "Each heart holds the secret;  
 Kindness is the word."  
 —O'Reilly.

## Miscellaneous.

## A BURGOMASTER'S POCKET.

BY DR. JEROME V. C. SMITH.

Those who have been in Holland have had their curiosity excited. The men, women, horses, wooden shoes and canals, are unlike those of other countries. The men look well fed, with broad-brimmed hats, tall checks, neat breeches—every tubful being upon the sash—and great calves at their short legs; one can't resist gazing at them, on first being introduced into that country. But, if they are objects of surprise, the women are more so. They wear high caps, immense red petticoats and enormous sabots, which by interpretation, means wooden shoes, resembling miniature long boots. Of course, there is a never-ending clatter wherever they go. Their feet, like their tongues, are perpetually on the move.

As in London and Paris, there are dandies as well as dandizettes, besides a goodly number of both sexes who have broken loose from the customs of olden times, by wearing Christian clothing—that is, they put on pantalons having cloth enough in them not to pull the trowsers. Ladies, too—and there are crowds of them—dress in the pink of fashion. But the sturdiest old blood of the dikes and ditches—the people who lead money to distant countries by the millions with the hope that it may remain at interest forever—look down with an expression of ineffable contempt upon the modern popinjays in starched collars. They hate the sight of will-o'-wisp ladies in gossamer. A woman is prized by them on account of her substantial qualities—such as weight, diameter and ready money.

Of course every land has its peculiarities, its anomalies and characteristics. Holland, however, quite overtops all the rest of Europe in the amount of its oddities. Why, it would take half an hour to describe the bells in a single church in Amsterdam. There is a perpetual ding-dong night and day. Hours, quarters and halves are struck, one after the other, as regularly as the planets move in their orbits.

It would be an evening's work to recount all the funny things in Amsterdam, Rotterdam and other dunes in Belgium and Holland; so I shall proceed at once with the story of "The Burgomaster's Pocket."

Just behind the cathedral of Amsterdam—that museum of wooden saints—resided a fat official, Hans Van Wessel, in the last century, universally respected for his wealth. But he really had other claims upon the good opinion of his neighbors, for he smoked the best tobacco of any man in the city, the odor of which was admired by everybody who passed that way.

Now Van Wessel had a pretty daughter. The young broad-brims far and near had made the discovery that she would by and by grow into a wench, about the same period that a vast estate in Paramaribo would become her own unembarrassed property. Sultors, therefore, paid their respects to the father for the sole purpose of taking a peep at his irresistible Winnifreda. Many a tedious evening was given up to the pipe in the old fellow's society, occasionally saying, "Yaw, meinber," assenting to all propositions, however absurd, and laughing, like a Plunderer, with all their might, at his stupid jokes.

selected a nephew, Sebirtz Van Steigler, a sister's only child, to be the future husband of the captivating Winnifreda.

With purple eyes, as destitute of expression as a mummy, and with no more energy in his nature than a cyster, his fair cousin turned up her little nose at him, with a resolution to become the Jungfrau of somebody else's very much better. She had had her fair whippersnapper into Carl Steigler, several times while passing each other at the picture gallery. Sometimes they found themselves side by side contemplating a Reuters; and, although neither of them discovered the excellencies of the great masters, they found out that they had a growing partiality for each other.

This Carl Steigler was a poor lieutenant in the army of his majesty. Where he originated, or how he came into existence, is not material. For several months he had been on duty at the palace. While stationed at The Hague, the fire of the brightly young officer, who was remarkable for promptitude and gentlemanly bearing, had quite won upon the attention of the king. When, with the regiment, he was transferred for garrison duty to Amsterdam, royalty was heard to express regret that the gallant lieutenant had been obliged to leave.

Bless Van Wessel, besides being rich and having a lovely daughter, was also a man of great interest in other respects—for he was a burgomaster.

Well, by some unexplained necessity he discovered what was going on; and laying his pipe down one morning just after Winnifreda came from the gallery, he swore a monstrous, grand Dutch oath that defied translation, ending with "order and blissen," that she should be married to Sebirtz Van Steigler, and the lieutenant might go to the devil.

Confusion, anger, impatient love and unexpressed resolution, were each in turn called into activity by this unexpected explosion of parental powder. She felt that Steigler was necessary to her happiness, the very instant an obstacle was interposed. However, she had the discretion to mother the tomorrow rising in her beam. Women always exhibit their superiority over the sterner sex, in the management of their affections, by concealing their real feelings.

Among other peculiarities of this abrupt old father, he established the habit of extreme regularity, so that his movements were all regulated mechanically for each returning day. After smoking, breakfast being over, he put on his best coat and went straight to the burgomaster's hall. Hans Van Wessel was an alderman in function. On arriving, he entered a closet with two doors, where the coat was exchanged for an official gown. It was invariably suspended on a particular nail, and well known to all gentlemen of the court, as it was to the pages in attendance, on account of its awfully deep pockets. One of them, however, was superior in capacity, on account of being exclusively appropriated to tobacco. It was, de facto, a magazine in which a generous stock of the best article in the market was kept for his own use and behoof.

In these degenerate days, when smoking is considered in the aspect of an accomplishment rather than a solemn episode in the life of a solid man, it is quite impossible to understand the character of ancient puffing, as practiced in Amsterdam. When leaving home, the burgomaster always added a handful of leaves to the remnant remaining in the bottom of the previous day's provision, which was a forethought reduced to a custom; and, therefore, he was never made unhappy by finding himself on short allowance for the pipe.

High words ensued, and had it not been for the immediate interference of the daughter, one or the other might have been damaged. The lieutenant was ordered to quit the house instantly, and not to return to it on the penalty of a broken skull.

Van Wessel could see as far into a millstone as any man, and knowing the perversity of the sisterhood, when their hearts are palpitating under the influence of a tender partiality for somebody—who may be nobody to papas and mammas—resolved to bring a long contemplated matrimonial union with Sebirtz Van Steigler to a close, without fighting whether his daughter would dutifully oblige him or not, in the proposition.

Here the story can be economically shortened by passing over a long series of family events preparatory to the marriage. Steigler was perfectly indifferent, being willing to be hung or married, as his uncle thought best, for securing the family possessions and a name that never passed for less than a million of guilders among the Jew bankers. Winnifreda was neither allowed to continue her visits to the gallery nor hold any kind of communication with her lover, under penalty so terribly severe that she was careful not to give rise to a suspicion of the true condition of her heart. By urging and flattery the old burgomaster succeeded in lighting up a show of gallantry in Steigler. He knew that money was a god exceedingly worshiped in Holland, and, moreover, he had sense enough to perceive that marrying a cousin was an easy way of securing funds.

It was decided, after long meditation by Van Wessel, that the day of days which was designed to keep two of the largest estates together, should be solemnized at a specified period in a quiet manner, quite private, because it would be unattended with expense. No one was to be invited. The priest and the parties, with himself and wife, were considered quite sufficient for all legal purposes; and as for the world, what people might say, was of no consequence to property.

Sebirtz Van Steigler became a constant attendant, to the surprise of Winnifreda, in order to carry out a design of some consequence to her happiness, she seemed to acquiesce in the preparations; but it alarmed her on discovering that the affianced bridegroom was beginning to manifest a ray of sense—for he seriously entertained an opinion that his cousin was a charming girl.

Having no one for confidant, and the servants being interdicted from carrying notes or messages for their young mistress, under a declaration of instant dismissal from service, the prospect of ever again communing with the idol of her adoration began to assume a hopeless aspect.

The lieutenant was agitated with alternate fears of losing a prize of inestimable value. He cared nothing for what she might have, but he loved her for what she was—a woman with a soul. Men make an awkward show of themselves, when under the all-controlling influence of a tender passion, and out of a special regard for the sex, prudence requires that what passed in the lieutenant's mind should be suppressed.

As he was tip-toeing backward and forward in the middle of a dark night, before the prison of his lovely inmate, deploring that destiny had interposed a barrier between him and an angelic creature, who was soon to pass forever beyond his ken, Winnifreda, equally miserable, replying in her dreaminess, caught a glimpse of a human form.

From the circumstances that he walked with the caution of a sentinel, without passing either way beyond sight of the house, she saw, as only a woman can see, under analogous circumstances, that it was Steigler.

In a tumult of ecstasy she kissed her hand from an upper window, and, as he came to the door, he saw her hand reaching out to arrest his ear. They had but a moment to exchange vows, when she heard her father approaching the apartment, and she whispered so that the lieutenant heard, "Search the bottom of the burgomaster's pocket daily at the Hotel de Ville."

Before the old fellow had made ready for his regular promenade, the signal, when he was about to move, consisted in changing coats. Winnifreda had deposited, under a heap of tobacco, a frank avowal of her regard for Steigler, and all the particulars of the proposed marriage, and concluded by calling all the gods in the heathen calendar to save her from such impending wretchedness.

The enraptured lieutenant was exceedingly perplexed about the pocket. He could not divine the meaning of a direction so signally enigmatical. After pondering upon it till obscurity became more obscure, it occurred to him to call at the municipal hall and make inquiries if anyone knew anything of the "burgomaster's pocket." Fortunately having doffed the gold lace garments for plain country habiliments, he chatted with the porter upon the steps, gained his civilities and an invitation to inspect the whole establishment, a privilege uniformly accorded to strangers, by presenting him a fire pipe, with a piece of coin to cover the bowl.

Every object pleased him; and the discovery that the countenances was a man possessing an inquisitive mind, induced the porter to be extremely free in explanation of whatever was new to him. At a proper juncture in the ripening acquaintance, Steigler asked him where the burgomaster's pocket was kept—never for a moment suspecting that it was a real bona fide pocket, belonging to a living man. Laughing heartily, he told his generous visitor that by looking into a closet right before his very eyes, he might see it for himself.

Everybody laughed about Van Wessel's great pocket; consequently the servants of the municipal edifice knew as much about it as their betters. With a broad grin of derision, which the porter would not dare to exhibit to any one but a stranger or inferior, the veritable coat was pointed out, suspended from the day its proprietor had been elevated to the dignity of burgomaster.

That was sufficient for Steigler's purpose, to know that there was a garment belonging to the father of the enchanting Winnifreda, and further, that it had an immense pocket. When the official was called off in the discharge of duties in the interior, Steigler, watching for a convenient opportunity, entered the closet from the area, and thrusting a hard down to the bottom, quite smothered in tobacco, found a letter to his own address.

Reflection afforded him topics in abundance for the fabrication of an answer. It was a plain statement of his misery and commiseration for the fair writer, who had thus ingeniously contrived to have her cruel, self-willed father the bearer of dispatches to a rival of his favorite Sebirtz Van Steigler. His was deposited where he took the other, below the superincumbent weed, before Van Wessel's hour of departure.

In the meanwhile, Winnifreda was tortured with apprehensions lest there should be some unexpected development, and all her plans be frustrated by the discovery of the message she had entrusted to a conveyance so extraordinary. Her impatience for her father's return could hardly be concealed. Regular as the ticking of a clock he entered the house, hung up his coat, and retired to an arm-chair in a far-off room for a smoke.

To her ineffable gratification, the post had brought a return mail. The scheme, therefore, worked charmingly. Thus for weeks in succession they exchanged letters with a promptness that must have been delightful to them. Van Wessel saw that his daughter had better spirits, a more cheerful countenance, and treated him with a warmth of affection that convinced him she had voluntarily resolved to please a parent by renouncing the lieutenant.

As the longest day has an end, so do human hopes. Winnifreda began to indulge the idea that a marriage with the abominable Steigler would gradually die away, and that her father would forget to utter the ceremony. His perseverance in any cause wholly depended on the opposition he might meet with in carrying out a plan. When there were obstacles to be overcome, his energy was perfectly indomitable; but he became careless, and, indeed, quite indifferent with respect to a favorite project, on ascertaining there was nothing in the way of accomplishing his designs.

Contrary, however, to the usual course, Wessel one morning astounded the household by declaring that Winnifreda should be united to her cousin the next evening at 7 o'clock, in the cathedral. Preparation had been made by himself, the priest had promised to be in waiting, but no guests were to be present at the happy event.

Never was distraction more thoroughly depicted in a human face! The poor girl, in the depths of her wretchedness, came near dying with an excess of grief at her

impending fate. Her only avenue of relief was to dispatch an earnest note to Steigler, through the trusty old pocket, in which she described the intensity of her misery. One bright thought, however, gleamed like a ray of sunshine. She gave a minute account of the determination of her unfeeling father, and closed by urging the brave lieutenant, without failure to conceal himself in an ante-room of the church, with a trusty companion or two, and upon the honor of a friend and lover, as he valued his life, to be there before the family party should arrive. A few other suggestions were parenthetically introduced, which were not lost upon Lieut. Steigler, who was as ingenious as himself in expedients to prevent the union with her vulgar cousin.

By extreme activity through the day, and extending his inquiries among the tailors, on the receipt of the contents of the burgomaster's pocket for the day, he ascertained precisely the kind of dress that the bridegroom would have on, and procured a facsimile of each in all respects. Being of the same height, it was the united opinion of his assisting friends that he might pass, in the evening, for Steigler himself.

With the disquisition of a general in an enemy's country, Steigler stationed his forces, having previously apprised Winnifreda by the return pocket, under any circumstances, not to be alarmed at the altar. He cautioned her to give her hand readily and make all the required vows, and, in short, do precisely as the holy man in the surplice should direct.

Just as the evening shades were setting in, Van Wessel had smoked an extra pipeful on the glorious occasion, the family with the affianced bride walked over to the cathedral. Cousin Steigler retired to the ante-room to arrange his dress, while Winnifreda, with her mother and a single bridesmaid, entered another, which is customary on such occasions. No sooner had he passed fairly than a napkin was thrown over his mouth and half a dozen stalwart fellows, by dint of strong arms carried him out of the building by a back door, threatening instant death if he even breathed audibly! Where they went with him was never known. Even the kidnapped fool, in after years, could give no account of it.

Personating the abstracted Steigler, the bold lieutenant appeared at the door as the lady re-entered from the other. He walked to her with an air of confidence, and led her to the front of the altar. Van Wessel, with his quiet bow, stood back in the rear, while the solemn ceremony was conducted completely, and the priest, in a loud voice, proclaimed: "What God has joined together, let no man put asunder!" "Now," said the burgomaster, when he saw the twin were one flesh, "I am the happiest man in Amsterdam, and my daughter the richest wife." At that juncture the bride and bridesroom turned round to greet their friends. The lamps had been lighted, and to the confusion of Hans Van Wessel, he saw with his own eyes that Lieut. Steigler instead of Sebirtz Van Steigler was the husband of his only child and heir. He could not speak beyond faintly uttering, "Dunder and blixen!"

How they got home or what was said in extension of the trick that had been played at the expense of his fool of a nephew, the chronicles of the time do not mention.

Immediately the whole transaction took wing, which no precautions on the part of the Van Wessel family could control, and the story finally reached the king's ears at The Hague. He enjoyed it amazingly; and the joke laughed over the affair as being the best joke of the season. His majesty, on inquiry, having ascertained that Lieut. Steigler had rendered meritorious service, for which he had not received a corresponding recompense from the crown, made inquiry into his history. He proved to be the heir of a favorite officer, the late Count Steigler, of glorious memory. The king at once directed a commission to be sent to the address of "Capt. Count Steigler, of the Royal Guard."

Hans Van Wessel saw his daughter had a gentleman for a husband, who was honored by the court. This changed his views and he declared himself reconciled to an event he could not control. On being informed how he had regularly and faithfully been the bearer of their correspondence, he could not refrain from laughing in turn, but he declared if he were to live his life over again his coats should always be made without a pocket.

## Chinese Education.

The first Chinese school I ever visited I thought a riot had broken out. About fifty boys were seated upon high three-legged stools, and each swayed his body to and fro and shouted at the top of his voice. It was more like the raving ward in a lunatic asylum than a place for learning classic lore. But it was only an ordinary every day scene in study hours. I puzzled my brain over the matter not a little before I discovered the reason of the noise. When I was a pupil in a country school we used to "study out loud" during the temporary absence of the teacher, but we never adopted the plan permanently.

The Chinese language cannot be spoken in a whisper. It has tones and accents and inflections and grunts and gutturals and nasals which can only be produced in full voice, and every variation and precision in tone, etc., is essential to the proper meaning of the words. The same identical word pronounced in different ways has as many different meanings as it has different methods of accent. Thus, while each pupil made as much noise as he could unaided by gongs or bladders, his own nose effectively drowned all other sounds to him, and he was in practical silence. At Chinese theaters everybody in the audience talks out at the same time as the players are talking. It is the running comment upon the play and the players. At churches, while the preacher is delivering his discourse, his audience is also talking at full speed. It is more like a sewing bee in the country, where the ladies meet to talk over their personal matters, than anything else I know of.

Some people do not believe a Chinaman can think without singing over the subject of his thoughts. It is at least a common occurrence to hear an animated conversation around some turn in the road, and when you come upon what you have taken to be a company of travelers you find one man talking to himself.

Each pupil at school furnishes his own desk and chair, or stool. He also provides himself with a teapot and a fan and a book. These comprise the outfit. In one end of the room sits the teacher. He is a small, thin man, whose coat sleeves are about a foot longer than his arms, and his finger nails are as long as his fingers, and he wears glasses with lenses about as big as the top of a coffee cup. He looks wise and solemn through it all.

He never disturbs the pupils by calling upon them to recite. When a boy has sung over a paragraph until he can sing it off with his eyes shut, he jumps down from his perch, and hands the book to the teacher to watch if he trips in his recital, and turning his back to the teacher he sings (if the words committed. In order to concentrate his attention upon his work, the pupil lifts first one foot and then the other, giving his body a swaying motion like a ship rocking in the cradle of the deep. The lesson having been repeated, he resumes his perch and takes the next paragraph in hand. The curriculum, like everything else, is unique.

He never disturbs the pupils by calling upon them to recite. When a boy has sung over a paragraph until he can sing it off with his eyes shut, he jumps down from his perch, and hands the book to the teacher to watch if he trips in his recital, and turning his back to the teacher he sings (if the words committed. In order to concentrate his attention upon his work, the pupil lifts first one foot and then the other, giving his body a swaying motion like a ship rocking in the cradle of the deep. The lesson having been repeated, he resumes his perch and takes the next paragraph in hand. The curriculum, like everything else, is unique.

He never disturbs the pupils by calling upon them to recite. When a boy has sung over a paragraph until he can sing it off with his eyes shut, he jumps down from his perch, and hands the book to the teacher to watch if he trips in his recital, and turning his back to the teacher he sings (if the words committed. In order to concentrate his attention upon his work, the pupil lifts first one foot and then the other, giving his body a swaying motion like a ship rocking in the cradle of the deep. The lesson having been repeated, he resumes his perch and takes the next paragraph in hand. The curriculum, like everything else, is unique.

## A MINER'S STORY.

I never did take kindly to chaps that wear clothes made to fit 'em as if they had been melted and run into 'em, especially chaps that wear standin' collars and cuffs that would make good cheese hoops. They always 'mind me' of faro dealers and dance house bosses. But somehow with Jim it was different. He wasn't like the other men what come swellin' into camp as if they were a golt' to own the whole diggin's.

I was a-tittin' on the bench in front of the postoffice when the stage come a-rattlin' down the hill, bringin' the mail, and Jim as the only passenger. I always did like to sit round the postoffice when the mail come in, with a kinder expectant look on my face. Not that I expected a letter, and I don't know as I ever got but one in twenty years, and that was writ only just to inform me that my only relative was dead. But it kinder made me feel good to see other folks get letters, and then, too, the postoffice was in Sandy Jones' bar room, the biggest room in his hotel, and Sandy kept the best stock of liquor in the Forks. It's kind natural to ask everybody round to take somethin' when you get a letter with good news in it.

As I was a sayin', I was sittin' there on the bench when the stage come. I noticed that Tom Roper wasn't alone on the seat, 'fore he got to the office. Sittin' side of him was a young man, dressed to kill, with one of the most promising indications of a mistake you ever saw. He was a smokin' a cigar, and it must have been a good one, for as he jumped down from his seat and went into the post office, past me, he says to me, "How do do?" good natured like, and I got a whiff of that cigar smoke, and I don't know what new cut meadow hay, and that was writ only just to inform me that my only relative was dead. But it kinder made me feel good to see other folks get letters, and then, too, the postoffice was in Sandy Jones' bar room, the biggest room in his hotel, and Sandy kept the best stock of liquor in the Forks. It's kind natural to ask everybody round to take somethin' when you get a letter with good news in it.

As I was a sayin', I was sittin' there on the bench when the stage come. I noticed that Tom Roper wasn't alone on the seat, 'fore he got to the office. Sittin' side of him was a young man, dressed to kill, with one of the most promising indications of a mistake you ever saw. He was a smokin' a cigar, and it must have been a good one, for as he jumped down from his seat and went into the post office, past me, he says to me, "How do do?" good natured like, and I got a whiff of that cigar smoke, and I don't know what new cut meadow hay, and that was writ only just to inform me that my only relative was dead. But it kinder made me feel good to see other folks get letters, and then, too, the postoffice was in Sandy Jones' bar room, the biggest room in his hotel, and Sandy kept the best stock of liquor in the Forks. It's kind natural to ask everybody round to take somethin' when you get a letter with good news in it.

As I was a sayin', I was sittin' there on the bench when the stage come. I noticed that Tom Roper wasn't alone on the seat, 'fore he got to the office. Sittin' side of him was a young man, dressed to kill, with one of the most promising indications of a mistake you ever saw. He was a smokin' a cigar, and it must have been a good one, for as he jumped down from his seat and went into the post office, past me, he says to me, "How do do?" good natured like, and I got a whiff of that cigar smoke, and I don't know what new cut meadow hay, and that was writ only just to inform me that my only relative was dead. But it kinder made me feel good to see other folks get letters, and then, too, the postoffice was in Sandy Jones' bar room, the biggest room in his hotel, and Sandy kept the best stock of liquor in the Forks. It's kind natural to ask everybody round to take somethin' when you get a letter with good news in it.

As I was a sayin', I was sittin' there on the bench when the stage come. I noticed that Tom Roper wasn't alone on the seat, 'fore he got to the office. Sittin' side of him was a young man, dressed to kill, with one of the most promising indications of a mistake you ever saw. He was a smokin' a cigar, and it must have been a good one, for as he jumped down from his seat and went into the post office, past me, he says to me, "How do do?" good natured like, and I got a whiff of that cigar smoke, and I don't know what new cut meadow hay, and that was writ only just to inform me that my only relative was dead. But it kinder made me feel good to see other folks get letters, and then, too, the postoffice was in Sandy Jones' bar room, the biggest room in his hotel, and Sandy kept the best stock of liquor in the Forks. It's kind natural to ask everybody round to take somethin' when you get a letter with good news in it.

As I was a sayin', I was sittin' there on the bench when the stage come. I noticed that Tom Roper wasn't alone on the seat, 'fore he got to the office. Sittin' side of him was a young man, dressed to kill, with one of the most promising indications of a mistake you ever saw. He was a smokin' a cigar, and it must have been a good one, for as he jumped down from his seat and went into the post office, past me, he says to me, "How do do?" good natured like, and I got a whiff of that cigar smoke, and I don't know what new cut meadow hay, and that was writ only just to inform me that my only relative was dead. But it kinder made me feel good to see other folks get letters, and then, too, the postoffice was in Sandy Jones' bar room, the biggest room in his hotel, and Sandy kept the best stock of liquor in the Forks. It's kind natural to ask everybody round to take somethin' when you get a letter with good news in it.

As I was a sayin', I was sittin' there on the bench when the stage come. I noticed that Tom Roper wasn't alone on the seat, 'fore he got to the office. Sittin' side of him was a young man, dressed to kill, with one of the most promising indications of a mistake you ever saw. He was a smokin' a cigar, and it must have been a good one, for as he jumped down from his seat and went into the post office, past me, he says to me, "How do do?" good natured like, and I got a whiff of that cigar smoke, and I don't know what new cut meadow hay, and that was writ only just to inform me that my only relative was dead. But it kinder made me feel good to see other folks get letters, and then, too, the postoffice was in Sandy Jones' bar room, the biggest room in his hotel, and Sandy kept the best stock of liquor in the Forks. It's kind natural to ask everybody round to take somethin' when you get a letter with good news in it.

As I was a sayin', I was sittin' there on the bench when the stage come. I noticed that Tom Roper wasn't alone on the seat, 'fore he got to the office. Sittin' side of him was a young man, dressed to kill, with one of the most promising indications of a mistake you ever saw. He was a smokin' a cigar, and it must have been a good one, for as he jumped down from his seat and went into the post office, past me, he says to me, "How do do?" good natured like, and I got a whiff of that cigar smoke, and I don't know what new cut meadow hay, and that was writ only just to inform me that my only relative was dead. But it kinder made me feel good to see other folks get letters, and then, too, the postoffice was in Sandy Jones' bar room, the biggest room in his hotel, and Sandy kept the best stock of liquor in the Forks. It's kind natural to ask everybody round to take somethin' when you get a letter with good news in it.

As I was a sayin', I was sittin' there on the bench when the stage come. I noticed that Tom Roper wasn't alone on the seat, 'fore he got to the office. Sittin' side of him was a young man, dressed to kill, with one of the most promising indications of a mistake you ever saw. He was a smokin' a cigar, and it must have been a good one, for as he jumped down from his seat and went into the post office, past me, he says to me, "How do do?" good natured like, and I got a whiff of that cigar smoke, and I don't know what new cut meadow hay, and that was writ only just to inform me that my only relative was dead. But it kinder made me feel good to see other folks get letters, and then, too, the postoffice was in Sandy Jones' bar room, the biggest room in his hotel, and Sandy kept the best stock of liquor in the Forks. It's kind natural to ask everybody round to take somethin' when you get a letter with good news in it.

As I was a sayin', I was sittin' there on the bench when the stage come. I noticed that Tom Roper wasn't alone on the seat, 'fore he got to the office. Sittin' side of him was a young man, dressed to kill, with one of the most promising indications of a mistake you ever saw. He was a smokin' a cigar, and it must have been a good one, for as he jumped down from his seat and went into the post office, past me, he says to me, "How do do?" good natured like, and I got a whiff of that cigar smoke, and I don't know what new cut meadow hay, and that was writ only just to inform me that my only relative was dead. But it kinder made me feel good to see other folks get letters, and then, too, the postoffice was in Sandy Jones' bar room, the biggest room in his hotel, and Sandy kept the best stock of liquor in the Forks. It's kind natural to ask everybody round to take somethin' when you get a letter with good news in it.

As I was a sayin', I was sittin' there on the bench when the stage come. I noticed that Tom Roper wasn't alone on the seat, 'fore he got to the office. Sittin' side of him was a young man, dressed to kill, with one of the most promising indications of a mistake you ever saw. He was a smokin' a cigar, and it must have been a good one, for as he jumped down from his seat and went into the post office, past me, he says to me, "How do do?" good natured like, and I got a whiff of that cigar smoke, and I don't know what new cut meadow hay, and that was writ only just to inform me that my only relative was dead. But it kinder made me feel good to see other folks get letters, and then, too, the postoffice was in Sandy Jones' bar room, the biggest room in his hotel, and Sandy kept the best stock of liquor in the Forks. It's kind natural to ask everybody round to take somethin' when you get a letter with good news in it.

As I was a sayin', I was sittin' there on the bench when the stage come. I noticed that Tom Roper wasn't alone on the seat, 'fore he got to the office. Sittin' side of him was a young man, dressed to kill, with one of the most promising indications of a mistake you ever saw. He was a smokin' a cigar, and it must have been a good one, for as he jumped down from his seat and went into the post office, past me, he says to me, "How do do?" good natured like, and I got a whiff of that cigar smoke, and I don't know what new cut meadow hay, and that was writ only just to inform me that my only relative was dead. But it kinder made me feel good to see other folks get letters, and then, too, the postoffice was in Sandy Jones' bar room, the biggest room in his hotel, and Sandy kept the best stock of liquor in the Forks. It's kind natural to ask everybody round to take somethin' when you get a letter with good news in it.

As I was a sayin', I was sittin' there on the bench when the stage come. I noticed that Tom Roper wasn't alone on the seat, 'fore he got to the office. Sittin' side of him was a young man, dressed to kill, with one of the most promising indications of a mistake you ever saw. He was a smokin' a cigar, and it must have been a good one, for as he jumped down from his seat and went into the post office, past me, he says to me, "How do do?" good natured like, and I got a whiff of that cigar smoke, and I don't know what new cut meadow hay, and that was writ only just to inform me that my only relative was dead. But it kinder made me feel good to see other folks get letters, and then, too, the postoffice was in Sandy Jones' bar room, the biggest room in his hotel, and Sandy kept the best stock of liquor in the Forks. It's kind natural to ask everybody round to take somethin' when you get a letter with good news in it.

As I was a sayin', I was sittin' there on the bench when the stage come. I noticed that Tom Roper wasn't alone on the seat, 'fore he got to the office. Sittin' side of him was a young man, dressed to kill, with one of the most promising indications of a mistake you ever saw. He was a smokin' a cigar, and it must have been a good one, for as he jumped down from his seat and went into the post office, past me, he says to me, "How do do?" good natured like, and I got a whiff of that cigar smoke, and I don't know what new cut meadow hay, and that was writ only just to inform me that my only relative was dead. But it kinder made me feel good to see other folks get letters, and then, too, the postoffice was in Sandy Jones' bar room, the biggest room in his hotel, and Sandy kept the best stock of liquor in the Forks. It's kind natural to ask everybody round to take somethin' when you get a letter with good news in it.

As I was a sayin', I was sittin' there on the bench when the stage come. I noticed that Tom Roper wasn't alone on the seat, 'fore he got to the office. Sittin' side of him was a young man, dressed to kill, with one of the most promising indications of a mistake you ever saw. He was a smokin' a cigar, and it must have been a good one, for as he jumped down from his seat and went into the post office, past me, he says to me, "How do do?" good natured like, and I got a whiff of that cigar smoke, and I don't know what new cut meadow hay, and that was writ only just to inform me that my only relative was dead. But it kinder made me feel good to see other folks get letters, and then, too, the postoffice was in Sandy Jones' bar room, the biggest room in his hotel, and Sandy kept the best stock of liquor in the Forks. It's kind natural to ask everybody round to take somethin' when you get a letter with good news in it.

As I was a sayin', I was sittin' there on the bench when the stage come. I noticed that Tom Roper wasn't alone on the seat, 'fore he got to the office. Sittin' side of him was a young man, dressed to kill, with one of the most promising indications of a mistake you ever saw. He was a smokin' a cigar, and it must have been a good one, for as he jumped down from his seat and went into the post office, past me, he says to me, "How do do?" good natured







## THE MICHIGAN FARMER.

## ESSAY FARMERS' CLUB.

The April meeting was held on the 11th inst., with Mr. and Mrs. Alanson Matthews. The attendance was good, though the roads were nearly impassable, the mud being of unknown depth; but the day was bright and warm, the company radiant with good cheer, the welcome cordial, and the business of the day was promptly and earnestly taken up, each one on the programme for an exercise creditably performing the part assigned.

A recitation by Austin Cowles was well commended and rendered with earnestness. Next was an essay by J. T. Daniels, subject, "The Opportunities and the Responsibilities of the Farmer." The discussion which followed its reading was earnest and full.

W. Flotie—It covered much ground. Do we use our educational opportunities? We should not import annually \$400,000,000 of products, when all of our needs can be supplied from American production.

C. D. Rice—An education is of value, only as it is rightly used.

Mrs. Blomster—Our responsibilities are felt now more than formerly, and among them is that of exerting a salutary influence on the ignorant and superstitious foreigners who come among us. A college education is within the reach of all who are possessed of good health and sufficient energy.

President Cowles—Opportunities and responsibilities go hand in hand; as we improve so will we succeed. As heads of families, we should educate our children, that they may take their right place in society, that is what the farmer often fails to do; let us see to it that our duties to the rising generation are faithfully met.

Mrs. Daniels—Mental education is of great value, but moral education is of far greater value; and the farmer has the best opportunities for moral development; learning to shun that which is low and bad, and to seek that which is pure and elevating.

W. L. Caruss—Believes in an education, and that children should be educated to a certain standard, then let them proceed on their own resources. As new ideas are presented to us every day, so is our education never complete. We should prepare ourselves thoroughly for our duties, and not give too much attention to what which affects the pocketbook only.

A. Matthews—America has been unwise in her policy in inviting immigration. She should now be wise and restrain it.

Mrs. Cowles—Farmers' families do too much hard and continuous work; especially is this true of the wife; more recreation should be taken; short tours, to visit places of interest, give variety and also rest and health.

O. L. Rice—The industrious and honest foreigner should be made welcome, but the lazy and dishonest should be prohibited from coming among us.

Following the discussion A. Matthews read "Footpaths to Success," which abounded with valuable ideas and pertinent suggestions.

The recess for dinner was followed by an inspection of stock and buildings, and a stroll by all to an ancient Indian burial ground. It is situated on the farm, on a large, oblong, sharp elevation of land, lying a short distance from the banks of the Maple River; the soil is diversified; the surface near the river is level, but it rises from the river, is quite broken, even picturesque.

Upon reassembling, and after singing, O. L. Rice read "The Future of Farmer Boys." Among the ideas advanced were: Being true to convictions is what makes men; we judge men, not from their ability, but from the use they make of the same; take pride in your freedom to do right.

Next came an essay by Mrs. Norman Cowles, "Work," a subject with which all must grapple. Work gives life and health to the whole being. It is not overwork, but over-anxiety, that does injury. God ordains that mankind should work, therefore let us do work while we may, and above all, do faithful work for the Kingdom of Christ.

In the discussion of the essay, W. L. Caruss said he thought his father required too much work; had himself been too lenient. Teach the children to investigate, and to be more interested in poultry-music than in fiddle-music.

C. D. Rice—Children should be taught to be useful; as children are not all alike, instruction should be wisely given.

W. Flotie—Boys who do not work, but wait for the father to do for them, usually amount to but little. Aid your children, that they make a wise selection of their lifework.

Mrs. J. T. Daniels—Max O'Rilly says, "A man in Europe who is able to live without work is called a gentleman, but an American who lives without work is considered a loafer."

W. J. Richardson, being present as a guest and invited to speak said: "In youth we start great enterprises, but lack experience; in old age we have experience, but lack energy. He always had plenty of work, the result of the curse put on Adam. Teach your children to be strictly honest, and to look to God for all blessings."

Mrs. Blomster—A right medium would place more work on the young, and less on the older ones.

Pres. Cowles—All are entitled to work, and as we fulfill the appointment, so will we do our duty, and in this we should be interested. Those who plan to get out of work and to stay out if they succeed usually succeed in little else.

The question, "What reading interests me most?" was next taken up. A variety of views and preferences was expressed; among them were history, natural science, the old English reader, the writer who coincides with our views, history of a good flock or herd, of farming, of agriculture and of discoveries, Longfellow, Scott and Milton, reading which requires thought and

study; the Bible, it tells of a country to which we are all journeying.

Next was a recitation by Mrs. Matthews. Singing closed the exercises, and the Club adjourned to meet on May 9th at 6 o'clock p. m., with Mr. and Mrs. O. L. Rice.

J. T. DANIELS, Secretary.

## BURLINGTON ROUTE.

But One Night, Chicago to Denver.

"The Burlington's Number One" daily vestibule express leaves Chicago at 1:00 p. m. and arrives at Denver at 6:30 p. m. the next day. Quicker time than by any other route. Direct connection with this train from Peoria. Additional express trains, making as quick time as those of any other route, from Chicago, St. Louis and Peoria to St. Paul, Minneapolis, Council Bluffs, Omaha, Cheyenne, Denver, Atchison, Kansas City, Houston and all points West, Northwest and Southwest.

Change on the Detroit, Grand Haven & Milwaukee Ry.

Commencing Monday, May 13th, the summer changes will go into effect on the D. G. & H. M. Ry. The train leaving Det. at 6:40 a. m. will have an elegant parlor car attached. At Grand Haven a connection is made with company's steamer for Muskegon, arriving there at 8:30 p. m. The train leaving Det. at 10:30 a. m. will make direct connection at Owosso Junction with trains of the Toledo, Saginaw & Muskegon Rr. for Carson City, Greenlee, Muskegon and intermediate points, arriving at Muskegon at 5:45 p. m. This train also connects at Grand Haven with Goodrich steamers for Chicago. The fast steamboat express will leave Detroit at 4:30 p. m., connecting at Grand Haven with company's fastest steamer for Milwaukee and the Northwest. A new feature of this train is that one of Wagner's best Parlor Buffet cars will be attached, in which all passengers can obtain a fine lunch and refreshments of all kinds. This new service will be appreciated by the patrons of the "O. D. Reliance." Train leaving Detroit at 8:30 p. m. will have a Pullman Buffet car attached for Chicago. Train leaving Detroit at 10:30 p. m. will have a Pullman Buffet car attached for Chicago.

Harvesting Machinery from the World's Fair City.

CHICAGO, April 13th, 1890.—(Special.)—A monster freight train drawn by two engines left this city today for Minneapolis. The entire train was loaded with Deering Two Brothers and Deering Mowers, from the works of Wm. Deering & Co., the city, said to be the largest manufacturers of harvest machinery in the world. The train was highly decorated and a brass band in uniform accompanied it. On one car a winter plow was shown set up ready for work. Displays from points passed to day show that enthusiastic crowds greeted the train at all stations and the trip so far is an event triumphal procession. It is not unusual for this train to send out train loads of machinery all over the country, but this train attracts special attention.

BERGHAM'S PILLS cure bilious and nervous.

Apitha in Lembs.

ANDERSON, Mich., April 26, 1890.

Veterinary Editor of the Michigan Farmer.

I have some fine wool lambs about four weeks old; they have some mouths; I feel sure they will be good for the market.

They are something like a ewe, and grow now like proud fish, until it fills the mouth. It spreads to the lips and tongue, also the back teeth. Can you tell me what ails them, and what to do for them?

A SUBSCRIBER

Ans.—The disease in your lamb is known as apitha, or sore mouth, accompanied with a discharge of viscid saliva, the treatment for which is simple and usually effective. First wash the mouth clean with soft water, using a clean soft cloth of sponge for the purpose; then bathe the mouth with the following remedy: Tincture of myrror, one part; soft water, two or three parts; mix and apply with the sponge twice a day. Give internally one half to one ounce sulphate of magnesia, dissolved in tepid water.

Wolf Teeth in a Colt.

DEARFIELD, Mich., April 26th, 1890.

Veterinary Editor of the Michigan Farmer.

I would like to ask if there was such a thing as wolf teeth in a colt or horse? A veterinary pulled them from two colts for me, and said they were wolf teeth. They were firmly imbedded in the upper jaw, just in front of the molars.

J. K. G.

Ans.—The term wolf teeth in the horse, as generally understood by farmers and horsemen, is a misnomer. These teeth are in pairs, the same as the other teeth, and belong to the deciduous, or temporary set, and are the last to make their appearance in the mouth, usually about the second year of the animal's life. They are not injurious to the animal's eyes in any manner whatever, a fact we have many times demonstrated in this column.

Indigestion in a Horse.

HOWEN, Mich., April 24th, 1890.

Veterinary Editor of the Michigan Farmer.

I have a six year old mare that was taken sick Saturday, April 20th, with what I supposed to be indigestion. I called a veterinary, and he pronounced it the same, and gave her medicine which he claimed would cure her. She seemed to mend very gradually for a week, but had a poor appetite. Her symptoms, when first taken sick, were as follows: Inclined to lie down a good deal of the time, but not floundering out to any extent; would lie natural then straighten out; lay her head flat on the floor; then put her nose back toward her flank, etc. Kept changing position, but not at all violent. Her bowels were regular in their discharges and most of the time would rumble; at times however the rumbling would resemble the moving about of water. Her discharge of urine seemed regular, but very milky. Her ears and limbs up to the knees and gambrels became cold; the pulse

slow and weak, and at times, when standing on her feet, would tremble, mainly about the flank and chest. As I have said before, she seemed to mend slowly for a week, during that time seemed sore, stiff, and had very little appetite; while in the field with the other horses would not play, and seemed all out of sorts generally. In about a week after the first attack she commenced to lie down and go through the same motions as in the previous attack. She has now been sick a little over two weeks; have had the doctor three times; but during the last week she spells come from two to four times daily, during which time she puts her head over the manger and rubs her jaws from chin to neck, and also the top of her head, and while lying down will pace her chin on the floor and draw it gradually back to her chest. During this time, when attacked, I have given her a dose of hot drops of oil and capsicum, making a very hot dose; they seem to relieve her, but the attacks return nearly every day. From my description of this case you, through the FARMER, inform me what the trouble is with my horse and what to do for it.

W. P. MARSH.

Ans.—From the symptoms so briefly described we cannot satisfactorily diagnose the trouble with your horse. We are, however, of the opinion that your veterinary is correct in his diagnosis, as far as it goes. We are of the opinion that the primary cause is due to some morbid condition of the liver, causing indigestion from imperfect or interrupted secretion of bile; or it may be due to foreign accumulations in the stomach. If your veterinary will write us upon the subject, giving us his opinion, etc., we will be pleased to give our opinion understandingly, and suggest treatment.

Commercial.

DETROIT WHOLESALE MARKET.

DETROIT, May 3, 1890.

FLOUR.—Market very firm. No change in prices, except in small quantities advanced.

On car load lots are as follows:

Michigan roller process, 4.00 @ 4.25

Michigan roller process, 4.00 @ 4.25

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

slow and weak, and at times, when standing on her feet, would tremble, mainly about the flank and chest. As I have said before, she seemed to mend slowly for a week, during that time seemed sore, stiff, and had very little appetite; while in the field with the other horses would not play, and seemed all out of sorts generally. In about a week after the first attack she commenced to lie down and go through the same motions as in the previous attack. She has now been sick a little over two weeks; have had the doctor three times; but during the last week she spells come from two to four times daily, during which time she puts her head over the manger and rubs her jaws from chin to neck, and also the top of her head, and while lying down will pace her chin on the floor and draw it gradually back to her chest. During this time, when attacked, I have given her a dose of hot drops of oil and capsicum, making a very hot dose; they seem to relieve her, but the attacks return nearly every day. From my description of this case you, through the FARMER, inform me what the trouble is with my horse and what to do for it.

W. P. MARSH.

Ans.—From the symptoms so briefly described we cannot satisfactorily diagnose the trouble with your horse. We are, however, of the opinion that your veterinary is correct in his diagnosis, as far as it goes. We are of the opinion that the primary cause is due to some morbid condition of the liver, causing indigestion from imperfect or interrupted secretion of bile; or it may be due to foreign accumulations in the stomach. If your veterinary will write us upon the subject, giving us his opinion, etc., we will be pleased to give our opinion understandingly, and suggest treatment.

Commercial.

DETROIT WHOLESALE MARKET.

DETROIT, May 3, 1890.

FLOUR.—Market very firm. No change in prices, except in small quantities advanced.

On car load lots are as follows:

Michigan roller process, 4.00 @ 4.25

Michigan roller process, 4.00 @ 4.25

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00

Minnesota, bakers, 3.50 @ 4.00